



Authorization for Credit Card Transactions

Department of Homeland Security

Form G-1450

How To Fill Out Form G-1450

1. Type or print legibly in black ink.
2. Complete the "Applicant's/Petitioner's/Requester's Information," "Credit Card Billing Information," and "Credit Card Information" sections and sign the authorization. **NOTE:** The credit card must be issued by a U.S. bank.
3. Place your Form G-1450 ON TOP of your application, petition, or request package.

NOTE: Failure to provide the requested information may result in DHS and your financial institution not accepting the payment. DHS cannot process credit card payments without an authorized signature.

NOTE: Please see the USCIS Form G-1450 website for additional information.

We recommend that you print or save a copy of your completed Form G-1450 to review in the future and for your records.

By completing this transaction, you agree that you have paid for a government service and that the filing fee, biometric services fee and all related financial transactions are final and not refundable, regardless of any action DHS takes on an application, petition, or request. You must submit all fees in the exact amounts. DHS will charge your credit card up to the amount you authorize below.

Please refer to the form(s) you are filing for additional information, or you may call the USCIS Customer Contact number at **1-800-375-5283**. For TTY (deaf or hard of hearing) call: **1-800-767-1833**.

Applicant's/Petitioner's/Requester's Information (Full Legal Name)			
Given Name (First Name) Rafael		Middle Name (if any) N/A	Family Name (Last Name) LIMA DESSART
Credit Card Billing Information (Credit Card Holder's Name as it Appears on the Card)			
Given Name (First Name)		Middle Name (if any)	Family Name (Last Name)
Credit Card Holder's Billing Address:			
Street Number and Name		Apt. Ste. Flr. ☐ ☐ ☐	Number
City or Town		State	ZIP Code
Credit Card Holder's Signature and Contact Information:			
Credit Card Holder's Signature			
Credit Card Holder's Daytime Telephone Number		Credit Card Holder's Email Address	
Credit Card Information			
Credit Card Number	Credit Card Type: ☐ Visa ☐ MasterCard ☐ American Express ☐ Discover		Authorized Payment Amount \$ 715.00
Credit Card Expiration Date CVV Code (mm/yyyy)			





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Department of Homeland Security

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Please refer to the form(s) you are filing for additional information, or you may call the USCIS Customer Contact number at **1-800-375-5283**. For TTY (deaf or hard of hearing) call: **1-800-767-1833**.

Applicant's/Petitioner's/Requester's Information (Full Legal Name)

Given Name (First Name) Rafael	Middle Name (if any) N/A	Family Name (Last Name) LIMA DESSERT
--	------------------------------------	--

Credit Card Billing Information (Credit Card Holder's Name as it Appears on the Card)

Given Name (First Name)	Middle Name (if any)	Family Name (Last Name)
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Credit Card Holder's Billing Address:

Street Number and Name	Apt. Ste. Flr. ☐ ☐ ☐	Number
City or Town	State	ZIP Code

Credit Card Holder's Signature and Contact Information:

Credit Card Holder's Signature

Credit Card Holder's Daytime Telephone Number

Credit Card Holder's Email Address

Credit Card Information

Credit Card Number	Credit Card Type: ☐ Visa ☐ MasterCard ☐ American Express ☐ Discover	Authorized Payment Amount \$ 300.00
Credit Card Expiration Date CVV Code (mm/yyyy)		





**EB-2 IMMIGRANT PETITION
WITH REQUEST FOR A NATIONAL INTEREST WAIVER**

Petitioner: Dessart, Rafael Lima

**HS Law Corp
P.O Box 90487
San Diego - CA - United States**

TABLE OF CONTENTS

Petitioner: **Dessart, Rafael Lima**

Type of Petition: **I-140, EB-2 National Interest Waiver**

Classification Sought: **Immigration and Nationality Act 203(b)(2)(B)**

Forms	• Form G-1450 in the amount of \$715 towards I-140 form filling fee • Form G-1450 in the amount of \$300 towards Asylum Program Fee • Form G-1145 • Form G-28 • Form I-140 • ETA-9089
Petition Cover Letter	• Summary of Cover Letter • Petition Cover Letter • Exhibit List
Exhibit A	• Resume (Curriculum Lattes)
Exhibit B ELIGIBILITY CRITERIA	Advanced Degree • Doctorate (Ph.D.) in Water Resources and Environmental Sanitation – Federal University of Rio Grande do Sul (UFRGS) – Diploma and Transcript • Master’s Degree in Geology – University of Vale do Rio dos Sinos (UNISINOS) – Diploma and Transcript • Bachelor’s Degree in Geology – UNISINOS – Diploma and Transcript • Postgraduate Specialization in Georeferenced Spatial Information - UNISINOS • Academic Credential Evaluation (Equivalency to U.S. Ph.D.) • Work Records - Owner and Lead Environmental Consultant – EarthLog Consulting/ DGEO (2016–Present) - Visiting Professor – Federal University of Pampa (UNIPAMPA) (2013–2015) - Consultant Geologist – FTGeo Consulting (2013) - Project Geologist – Geomap Geologia LTDA (2011–2013) - Project Geologist – Neocorp Project Development LTDA (2008–2009)

Exhibit C
NATIONAL
INTEREST
WAIVER

C.I – First Prong – Substantial Merit and National Importance:

- Business Plan for EarthLog Consulting
- Research and Government Initiatives Supporting Water Security and Infrastructure Resilience

C.II – Second Prong – Well-Positioned to Advance the Proposed Endeavor:

- All the documents from Exhibit B
- Professional Courses and Certificates
 - Geological Hazards and Risk Assessment – American Museum of Natural History (AMNH)
 - Other courses and certificates
- Professional Recognition and Awards:
 - Brazil 2025 Excellence and Quality Award – "Professional of the Year"
- Financial Records and Income Tax Returns
 - Brazilian Individual Income Tax Return- Tax Year 2025 (Calendar Year 2024)
- Scientific Publications:
 - Book: "Acurácia das Coordenadas"
 - Book “Geology of the Pampas in Photography: The Geodiversity of the Gaúcho Pampas”
 - Scientific Articles and Symposiums
 - Certificate of Reviewing
 - Presentations at the Uruguayan Geology Congress
- Licensure and Professional Credentials
 - Professional License – CREA-RS (No. 126851-D) – ID Card and Registration
 - Brazilian Geological Society (SBG) – Membership Certificate and Bylaws
 - South-Brazilian Professional Association of Geologists – APSG
- Letters of Support
 - Dr. Henrique Garcia Pereira
 - Dr. Pedro Reginato
 - Dr. Cristiano Danieli
 - Dr. Jacson Gosman Gomes de Lima
 - Dr. Maximilian Fries
 - Dr. José Waldomiro Jiménez Rojas
- Other Eligible Evidences
 - Evidence of Articles and Advanced Degrees: Master’s and Doctoral Documentation
 - CREA (Council of Engineering and Agronomy) – Regulatory

	body for Engineers and Geologists in Brazil - EPA (Environmental Protection Agency) – U.S. agency responsible for protecting human health and the environment. - USGS (U.S. Geological Survey) – Primary U.S. agency for Earth science and natural hazard monitoring. - FEMA (Federal Emergency Management Agency) – U.S. agency focused on disaster resilience and emergency management. - Bureau of Reclamation – U.S. agency managing water resources in the Western United States. - Federal University of Rio Grande do Sul (UFRGS) – Top-tier research institution in Brazil. - University of Vale do Rio dos Sinos (UNISINOS) – Leading university for geological studies. - Federal University of Pampa (UNIPAMPA) – Public university where academic and professional foundations were established. - Clean Water Act (by EPA). - EPI (Economic Policy Institute). - Journal of Applied Geophysics – a leading peer-reviewed venue for research on the application of geophysics to engineering, hydrology, and environmental problems. - About COMENDA
<u>Exhibit D</u> PERSONAL DOCUMENTS	• Birth Certificate and Corresponding Translation • Passport's Biometrics Page • Marriage Certificate and Corresponding Translation • Derivative's Birth Certificate and Corresponding Translation • Derivative's Passport's Biometrics Page



e-Notification of Application/Petition Acceptance

Department of Homeland Security
U.S. Citizenship and Immigration Services

USCIS
Form G-1145

What Is the Purpose of This Form?

Use this form to request an electronic notification (e-Notification) when U.S. Citizenship and Immigration Services accepts your immigration application. This service is available for applications filed at a USCIS Lockbox facility.

General Information

Complete the information below and clip this form to the first page of your application package. You will receive one e-mail and/or text message for each form you are filing.

We will send the e-Notification within 24 hours after we accept your application. Domestic customers will receive an e-mail and/or text message; overseas customers will only receive an e-mail. Undeliverable e-Notifications cannot be resent.

The e-mail or text message will display your receipt number and tell you how to get updated case status information. It will not include any personal information. The e-Notification does not grant any type of status or benefit; rather it is provided as a convenience to customers.

USCIS will also mail you a receipt notice (I-797C), which you will receive within 10 days after your application has been accepted; use this notice as proof of your pending application or petition.

USCIS Privacy Act Statement

AUTHORITIES: The information requested on this form is collected pursuant to section 103(a) of the Immigration and Nationality Act, as amended INA section 101, et seq.

PURPOSE: The primary purpose for providing the information on this form is to request an electronic notification when USCIS accepts immigration form. The information you provide will be used to send you a text and/or email message.

DISCLOSURE: The information you provide is voluntary. However, failure to provide the requested information may prevent USCIS from providing you a text and/or email message receipting your immigration form.

ROUTINE USES: The information provided on this form will be used by and disclosed to DHS personnel and contractors in accordance with approved routine uses, as described in the associated published system of records notices [**DHS/USCIS-007 - Benefits Information System and DHS/USCIS-001 - Alien File (A-File) and Central Index System (CIS)**], which can be found at www.dhs.gov/privacy. The information may also be made available, as appropriate for law enforcement purposes or in the interest of national security.

Complete this form and clip it on top of the first page of your immigration form(s).

Applicant/Petitioner Full Last Name LIMA DESSART	Applicant/Petitioner Full First Name Rafael	Applicant/Petitioner Full Middle Name N/A
Email Address rldessart@gmail.com		Mobile Phone Number (Text Message)





**Notice of Entry of Appearance
as Attorney or Accredited Representative**
Department of Homeland Security

**DHS
Form G-28**
OMB No. 1615-0105
Expires 05/31/2021

Part 1. Information About Attorney or Accredited Representative

1. USCIS Online Account Number (if any)

▶ 0 0 7 4 9 2 6 2 5 4 3 8

Name of Attorney or Accredited Representative

2.a. Family Name (Last Name) **HAVERROTH SILVA**
2.b. Given Name (First Name) **Otavio**
2.c. Middle Name **N/A**

Address of Attorney or Accredited Representative

3.a. Street Number and Name **PO Box 90487**
3.b. ☐ Apt. ☐ Ste. ☐ Flr. **N/A**
3.c. City or Town **San Diego**
3.d. State **CA** 3.e. ZIP Code **92169**
3.f. Province **N/A**
3.g. Postal Code **N/A**
3.h. Country **USA**

Contact Information of Attorney or Accredited Representative

4. Daytime Telephone Number **5102419336**
5. Mobile Telephone Number (if any) **5102419336**
6. Email Address (if any) **otavio@legalhs.com**
7. Fax Number (if any) **N/A**

Part 2. Eligibility Information for Attorney or Accredited Representative

Select **all applicable** items.

1.a. ☒ I am an attorney eligible to practice law in, and a member in good standing of, the bar of the highest courts of the following states, possessions, territories, commonwealths, or the District of Columbia. If you need extra space to complete this section, use the space provided in **Part 6. Additional Information**.

Licensing Authority

California

1.b. Bar Number (if applicable)

343486

1.c. I (select **only one** box) ☒ am not ☐ am subject to any order suspending, enjoining, restraining, disbaring, or otherwise restricting me in the practice of law. If you are subject to any orders, use the space provided in **Part 6. Additional Information** to provide an explanation.

1.d. Name of Law Firm or Organization (if applicable)

HS Law Corp

2.a. ☐ I am an accredited representative of the following qualified nonprofit religious, charitable, social service, or similar organization established in the United States and recognized by the Department of Justice in accordance with 8 CFR part 1292.

2.b. Name of Recognized Organization

N/A

2.c. Date of Accreditation (mm/dd/yyyy)

N/A

3. ☐ I am associated with

N/A

the attorney or accredited representative of record who previously filed Form G-28 in this case, and my appearance as an attorney or accredited representative for a limited purpose is at his or her request.

4.a. ☐ I am a law student or law graduate working under the direct supervision of the attorney or accredited representative of record on this form in accordance with the requirements in 8 CFR 292.1(a)(2).

4.b. Name of Law Student or Law Graduate

N/A



Part 3. Notice of Appearance as Attorney or Accredited Representative

If you need extra space to complete this section, use the space provided in **Part 6. Additional Information**.

This appearance relates to immigration matters before (select **only one** box):

- 1.a. ☒ U.S. Citizenship and Immigration Services (USCIS)
- 1.b. List the form numbers or specific matter in which appearance is entered.
I-140, ETA 9089
- 2.a. ☐ U.S. Immigration and Customs Enforcement (ICE)
- 2.b. List the specific matter in which appearance is entered.
N/A
- 3.a. ☐ U.S. Customs and Border Protection (CBP)
- 3.b. List the specific matter in which appearance is entered.
N/A
4. Receipt Number (if any)
▶ **N/A**
5. I enter my appearance as an attorney or accredited representative at the request of the (select **only one** box):
☐ Applicant ☒ Petitioner ☐ Requestor
☐ Beneficiary/Derivative ☐ Respondent (ICE, CBP)

Information About Client (Applicant, Petitioner, Requestor, Beneficiary or Derivative, Respondent, or Authorized Signatory for an Entity)

- 6.a. Family Name (Last Name) **LIMA DESSART**
- 6.b. Given Name (First Name) **Rafael**
- 6.c. Middle Name **N/A**
- 7.a. Name of Entity (if applicable)
N/A
- 7.b. Title of Authorized Signatory for Entity (if applicable)
N/A
8. Client's USCIS Online Account Number (if any)
▶ **N/A**
9. Client's Alien Registration Number (A-Number) (if any)
▶ A- **N/A**

Client's Contact Information

10. Daytime Telephone Number
+55 (51) 99802-0840
11. Mobile Telephone Number (if any)
+55 (51) 99802-0840
12. Email Address (if any)
rldessart@gmail.com

Mailing Address of Client

NOTE: Provide the client's mailing address. **Do not** provide the business mailing address of the attorney or accredited representative **unless** it serves as the safe mailing address on the application or petition being filed with this Form G-28.

- 13.a. Street Number and Name **PO Box 90487**
- 13.b. ☐ Apt. ☐ Ste. ☐ Flr. **N/A**
- 13.c. City or Town **San Diego**
- 13.d. State **CA** 13.e. ZIP Code **92169**
- 13.f. Province **N/A**
- 13.g. Postal Code **N/A**
- 13.h. Country
USA

Part 4. Client's Consent to Representation and Signature

Consent to Representation and Release of Information

I have requested the representation of and consented to being represented by the attorney or accredited representative named in **Part 1.** of this form. According to the Privacy Act of 1974 and U.S. Department of Homeland Security (DHS) policy, I also consent to the disclosure to the named attorney or accredited representative of any records pertaining to me that appear in any system of records of USCIS, ICE, or CBP.



Part 4. Client's Consent to Representation and Signature (continued)

Options Regarding Receipt of USCIS Notices and Documents

USCIS will send notices to both a represented party (the client) and his, her, or its attorney or accredited representative either through mail or electronic delivery. USCIS will send all secure identity documents and Travel Documents to the client's U.S. mailing address.

If you want to have notices and/or secure identity documents sent to your attorney or accredited representative of record rather than to you, please select **all applicable** items below. You may change these elections through written notice to USCIS.

- 1.a. ☒ I request that USCIS send original notices on an application or petition to the business address of my attorney or accredited representative as listed in this form.
- 1.b. ☒ I request that USCIS send any secure identity document (Permanent Resident Card, Employment Authorization Document, or Travel Document) that I receive to the U.S. business address of my attorney or accredited representative (or to a designated military or diplomatic address in a foreign country (if permitted)).
- NOTE:** If your notice contains Form I-94, Arrival-Departure Record, USCIS will send the notice to the U.S. business address of your attorney or accredited representative. If you would rather have your Form I-94 sent directly to you, select **Item Number 1.c.**
- 1.c. ☐ I request that USCIS send my notice containing Form I-94 to me at my U.S. mailing address.

Signature of Client or Authorized Signatory for an Entity

- 2.a. Signature of Client or Authorized Signatory for an Entity
➡ Rafael Lima Derrant
- 2.b. Date of Signature (mm/dd/yyyy) 04/22/2026

Part 5. Signature of Attorney or Accredited Representative

I have read and understand the regulations and conditions contained in 8 CFR 103.2 and 292 governing appearances and representation before DHS. I declare under penalty of perjury under the laws of the United States that the information I have provided on this form is true and correct.

1. a. Signature of Attorney or Accredited Representative
[Signature]
- 1.b. Date of Signature (mm/dd/yyyy) 04/22/2026
- 2.a. Signature of Law Student or Law Graduate
N/A
- 2.b. Date of Signature (mm/dd/yyyy) N/A



Part 6. Additional Information

If you need extra space to provide any additional information within this form, use the space below. If you need more space than what is provided, you may make copies of this page to complete and file with this form or attach a separate sheet of paper. Type or print your name at the top of each sheet; indicate the **Page Number**, **Part Number**, and **Item Number** to which your answer refers; and sign and date each sheet.

1.a Family Name (Last Name) **LIMA DESSART**

1.b Given Name (First Name) **Rafael**

1.c Middle Name **N/A**

2.a Page Number **N/A** 2.b Part Number **N/A** 2.c Item Number **N/A**

2.d.

N/A

3.a Page Number **N/A** 3.b Part Number **N/A** 3.c Item Number **N/A**

3.d.

N/A

4.a Page Number **N/A** 4.b Part Number **N/A** 4.c Item Number **N/A**

4.d.

N/A

5.a Page Number **N/A** 5.b Part Number **N/A** 5.c Item Number **N/A**

5.d.

N/A

6.a Page Number **N/A** 6.b Part Number **N/A** 6.c Item Number **N/A**

6.d.

N/A





Immigrant Petition for Alien Workers

Department of Homeland Security
U.S. Citizenship and Immigration Services

USCIS
Form I-140
OMB No. 1615-0015
Expires 02/28/2027

For USCIS Use Only	Fee Stamp	Priority Date	Consulate	Action Block
	Classification		Certification	
	☐ 203(b)(1)(A) Alien of Extraordinary Ability ☐ 203(b)(1)(B) Outstanding Professor or Researcher ☐ 203(b)(1)(C) Multinational Executive or Manager	☐ 203(b)(2) Member of Professions with Advanced Degree/Exceptional Ability ☐ 203(b)(3)(A)(i) Skilled Worker ☐ 203(b)(3)(A)(ii) Professional ☐ 203(b)(3)(A)(iii) Other Worker	☐ National Interest Waiver (NIW) ☐ Schedule A, Group I ☐ Schedule A, Group II	Remarks

To be completed by an Attorney or Accredited Representative (if any).	☒ Select this box if Form G-28 or Form G-28I is attached.	Attorney State Bar Number (if applicable) 343486	Attorney or Accredited Representative USCIS Online Account Number (if any) 0 0 7 4 9 2 6 2 5 4 3 8
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► **START HERE - Type or print in black ink.**

Part 1. Information About the Person or Organization Filing This Petition

If an individual is filing this petition, answer **Item Numbers 1.a. - 1.c.** If a company or organization is filing this petition, answer **Item Number 2.**

1.a. Family Name (Last Name) **LIMA DESSART**

1.b. Given Name (First Name) **Rafael**

1.c. Middle Name **N/A**

2. Company or Organization Name **N/A**

Mailing Address

3.a. In Care Of Name **Otavio Haverroth Silva**

3.b. Street Number and Name **PO Box 90487**

3.c. ☐ Apt. ☐ Ste. ☐ Flr. **N/A**

3.d. City or Town **San Diego**

3.e. State **CA** 3.f. ZIP Code **92169**

3.g. Province **N/A**

3.h. Postal Code **N/A**

3.i. Country **USA**

Other Information

4. IRS Employer Identification Number (EIN) ► **N/A**

5. Are you a nonprofit organized as tax exempt or a governmental research organization? ☐ Yes ☒ No

6. Do you currently employ a total of 25 or fewer full-time equivalent employees in the United States, including all affiliates or subsidiaries of this company/organization? ☒ Yes ☐ No

7. U.S. Social Security Number (SSN) (if any) ► **N/A**

8. USCIS Online Account Number (if any) ► **N/A**

Part 2. Petition Type

This petition is being filed for (select **only one** box):

- 1.a. ☐ An alien of extraordinary ability.
- 1.b. ☐ An outstanding professor or researcher.
- 1.c. ☐ A multinational executive or manager.
- 1.d. ☐ A member of the professions holding an advanced degree or an alien of exceptional ability (who is **NOT** seeking a National Interest Waiver (NIW)).
- 1.e. ☐ A professional (at a minimum, possessing a bachelor's degree or a foreign degree equivalent to a U.S. bachelor's degree).



Part 2. Petition Type (continued)

- 1.f. ☐ A skilled worker (requiring at least two years of specialized training or experience).
- 1.g. ☐ Any other worker (requiring less than two years of training or experience).
- 1.h. ☒ An alien applying for an NIW (who **IS** a member of the professions holding an advanced degree or an alien of exceptional ability).

This petition is being filed (select **only one** box):

- 2.a. ☐ To amend a previously filed petition.

Previous Petition Receipt Number

► N/A

- 2.b. ☐ For the Schedule A, Group I or II designation.

Part 3. Information About the Person for Whom You Are Filing

- 1.a. Family Name (Last Name) **LIMA DESSART**
- 1.b. Given Name (First Name) **Rafael**
- 1.c. Middle Name **N/A**

Mailing Address

- 2.a. In Care Of Name
Otavio Haverroth Silva
- 2.b. Street Number and Name **PO Box 90487**
- 2.c. ☐ Apt. ☐ Ste. ☐ Flr. **N/A**
- 2.d. City or Town **San Diego**
- 2.e. State **CA** 2.f. ZIP Code **92169**
- 2.g. Province **N/A**
- 2.h. Postal Code **N/A**
- 2.i. Country
USA

Other Information

3. Date of Birth (mm/dd/yyyy) **08/20/1975**
4. City/Town/Village of Birth
Porto Alegre
5. State or Province of Birth
Rio Grande do Sul

6. Country of Birth
Brazil
7. Country of Citizenship or Nationality
Brazil
8. Alien Registration Number (A-Number) (if any)
► A- **N/A**
9. U.S. SSN (if any) ► **N/A**

Information About His or Her Last Arrival in the United States

If the person for whom you are filing is in the United States, provide the following information.

10. Date of Last Arrival (mm/dd/yyyy) **N/A**
- 11.a. Form I-94 Arrival-Departure Record Number
► **N/A**
- 11.b. Expiration Date of Authorized Stay Shown on Form I-94 (mm/dd/yyyy) **N/A**
- 11.c. Status on Form I-94 (for example, class of admission, or paroled, if paroled)
N/A
12. Passport Number
N/A
13. Travel Document Number
N/A
14. Country of Issuance for Passport or Travel Document
N/A
15. Expiration Date for Passport or Travel Document (mm/dd/yyyy) **N/A**

Part 4. Processing Information

Provide the following information for the person named in **Part 3.** (select **only one** box):

- 1.a. ☒ Alien will apply for a visa abroad at a U.S. Embassy or U.S. Consulate at:
- 1.b. City or Town
Rio de Janeiro
- 1.c. Country
Brazil
- 2.a. ☐ Alien is in the United States and will apply for adjustment of status to that of lawful permanent resident.

Part 4. Processing Information (continued)

2.b. Alien's current country of residence or, if now in the United States, last country of permanent residence abroad.

Brazil

If you provided a United States address in **Part 3.**, provide the person's foreign address in **Item Numbers 3.a. - 3.f.**:

3.a. Street Number and Name Casemiro de Abreu 170

3.b. ☒ Apt. ☐ Ste. ☐ Flr. 101

3.c. City or Town Porto Alegre

3.d. Province Rio Grande do Sul

3.e. Postal Code 90420000

3.f. Country

Brazil

If the person's native alphabet is other than Roman letters, type or print the person's foreign name and address in the native alphabet in **Item Numbers 4.a. - 4.c.**:

4.a. Family Name (Last Name) N/A

4.b. Given Name (First Name) N/A

4.c. Middle Name N/A

Mailing Address

5.a. In Care Of Name

N/A

5.b. Street Number and Name N/A

5.c. ☐ Apt. ☐ Ste. ☐ Flr. N/A

5.d. City or Town N/A

5.e. Province N/A

5.f. Postal Code N/A

5.g. Country

N/A

If you answer "Yes" to **Item Numbers 6.a. - 10.**, provide the case number, office location, date of decision, and disposition of the decision in the space provided in **Part 11. Additional Information.**

6.a. Are you filing any other petitions or applications with this Form I-140? ☐ Yes ☒ No

6.b. If you answered "Yes" to **Item Number 6.a.**, select all applicable boxes:

☐ Form I-485

☐ Form I-131

☐ Form I-765

☐ Other (Provide an explanation in **Part 11. Additional Information.**)

7. Is the person for whom you are filing in removal proceedings? ☐ Yes ☒ No

8. Has any immigrant visa petition ever been filed by or on behalf of this person? ☐ Yes ☒ No

9. Are you filing this petition without an original labor certification because the original labor certification was previously submitted in support of another Form I-140? ☐ Yes ☒ No

10. If you are filing this petition without an original labor certification, are you requesting that U.S. Citizenship and Immigration Services (USCIS) request a duplicate labor certification from the Department of Labor (DOL)? ☐ Yes ☒ No

Part 5. Additional Information About the Petitioner

Type of petitioner (select **only one** box):

1.a. ☐ Employer

1.b. ☒ Self

1.c. ☐ Other (For example, Lawful Permanent Resident, U.S. citizen or any other person filing on behalf of the alien)

N/A

If a company or an organization is filing this petition, provide the following information:

2. Type of Business

N/A

3. Date Established (mm/dd/yyyy) N/A

4. Current Number of U.S. Employees N/A

5. Gross Annual Income \$ N/A

6. Net Annual Income \$ N/A

7. NAICS Code N/A

8. Labor Certification DOL Case Number

N/A

Part 5. Additional Information About the Petitioner (continued)

9. Labor Certification DOL Filing Date (mm/dd/yyyy)

N/A

10. Labor Certification Expiration Date (mm/dd/yyyy)

N/A

If an individual is filing this petition, provide the following information.

11. Occupation

Geologist

12. Annual Income \$

N/A

Part 6. Basic Information About the Proposed Employment

1. Job Title

Chief Executives

2. SOC Code



1 1

- 1 0 1 1

3. Nontechnical Job Description

See page 8.

4. Is this a full-time position?

☒ Yes ☐ No

5. If the answer to Item Number 4. is "No," how many hours per week for the position?

N/A

6. Is this a permanent position?

☒ Yes ☐ No

7. Is this a new position?

☐ Yes ☒ No

8. Wages (Specify hour, week, month, or year):

\$ 105,000.00 per year

Worksite Location

For Item Numbers 9.a. - 9.e., provide the address where the person will work if different from the address provided in Part 1.

9.a. Street Number and Name

To be determined

9.b. ☐ Apt. ☐ Ste. ☐ Flr.

To be determined

9.c. City or Town

Orlando

9.d. State

FL

9.e. ZIP Code

To be determined

Part 7. Information About the Spouse and All Children of the Person for Whom You Are Filing

For Part 7., provide information on the spouse and all children related to the individual for whom you are filing this petition. Also, note if the individual will apply for a visa abroad or adjustment of status as the dependent of the individual for whom the petition is filed. If you need extra space to provide information about additional family members, use the space provided in Part 11. Additional Information.

Person 1

1.a. Family Name (Last Name)

GOMES DESSART

1.b. Given Name (First Name)

Artur

1.c. Middle Name

N/A

2. Date of Birth (mm/dd/yyyy)

11/23/2010

3. Country of Birth

Brazil

4. Relationship

Son

5. Is he or she applying for adjustment of status?

☐ Yes ☒ No

6. Is he or she applying for a visa abroad?

☒ Yes ☐ No

Person 2

7.a. Family Name (Last Name)

GOMES DESSART

7.b. Given Name (First Name)

Eric

7.c. Middle Name

N/A

8. Date of Birth (mm/dd/yyyy)

01/05/2005

9. Country of Birth

Brazil

10. Relationship

Son

11. Is he or she applying for adjustment of status?

☐ Yes ☒ No

12. Is he or she applying for a visa abroad?

☒ Yes ☐ No



Part 7. Information About Spouse and All Children of the Person for Whom You Are Filing (continued)

Person 3

- 13.a. Family Name (Last Name) **N/A**
- 13.b. Given Name (First Name) **N/A**
- 13.c. Middle Name **N/A**
14. Date of Birth (mm/dd/yyyy) **N/A**
15. Country of Birth **N/A**
16. Relationship **N/A**
17. Is he or she applying for adjustment of status?
☐ Yes ☐ No
18. Is he or she applying for a visa abroad?
☐ Yes ☐ No

Person 4

- 19.a. Family Name (Last Name) **N/A**
- 19.b. Given Name (First Name) **N/A**
- 19.c. Middle Name **N/A**
20. Date of Birth (mm/dd/yyyy) **N/A**
21. Country of Birth **N/A**
22. Relationship **N/A**
23. Is he or she applying for adjustment of status?
☐ Yes ☐ No
24. Is he or she applying for a visa abroad?
☐ Yes ☐ No

Person 5

- 25.a. Family Name (Last Name) **N/A**
- 25.b. Given Name (First Name) **N/A**
- 25.c. Middle Name **N/A**
26. Date of Birth (mm/dd/yyyy) **N/A**
27. Country of Birth **N/A**
28. Relationship **N/A**
29. Is he or she applying for adjustment of status?
☐ Yes ☐ No
30. Is he or she applying for a visa abroad?
☐ Yes ☐ No

Person 6

- 31.a. Family Name (Last Name) **N/A**
- 31.b. Given Name (First Name) **N/A**
- 31.c. Middle Name **N/A**
32. Date of Birth (mm/dd/yyyy) **N/A**
33. Country of Birth **N/A**
34. Relationship **N/A**
35. Is he or she applying for adjustment of status?
☐ Yes ☐ No
36. Is he or she applying for a visa abroad?
☐ Yes ☐ No



Part 8. Contact Information, Certification, and Signature of the Petitioner or Authorized Signatory

Petitioner or Authorized Signatory's Contact Information

- 1.a. Petitioner's or Authorized Signatory's Family Name (Last Name)
LIMA DESSART
- 1.b. Petitioner's or Authorized Signatory's Given Name (First Name)
Rafael
2. Petitioner's or Authorized Signatory's Title
N/A
3. Petitioner's or Authorized Signatory's Daytime Telephone Number
+55 (51) 99802-0840
4. Petitioner's or Authorized Signatory's Mobile Telephone Number (if any)
+55 (51) 99802-0840
5. Petitioner's or Authorized Signatory's Email Address (if any)
rldessart@gmail.com

Petitioner's or Authorized Signatory's Certification and Signature

If filing this petition on behalf of an organization, I certify that I am authorized to do so by the organization:

- a. I reviewed and provided or authorized all of the responses and information in my petition;
- b. I understood all of the responses and information contained in, and submitted with, my petition; and
- c. All of the responses and information were complete, true, and correct at the time of filing

Furthermore, I authorize the release of any information from any and all of my records as authorized signatory and the petitioner's records that USCIS may need to determine the petitioner's eligibility for an immigration request and to other entities and persons where necessary for the administration and enforcement of U.S. immigration law.

- 6.a. Petitioner's or Authorized Signatory's Signature
Rafael Lima Dessart
- 6.b. Date of Signature (mm/dd/yyyy) **04/22/2026**

Part 9. Interpreter's Contact Information, Certification, and Signature

Interpreter's Full Name

- 1.a. Interpreter's Family Name (Last Name)
N/A
- 1.b. Interpreter's Given Name (First Name)
N/A
2. Interpreter's Business or Organization Name
N/A

Interpreter's Contact Information

3. Interpreter's Daytime Telephone Number
N/A
4. Interpreter's Mobile Telephone Number (if any)
N/A
5. Interpreter's Email Address (if any)
N/A

Interpreter's Certification and Signature

I certify, under penalty of perjury, that I am fluent in English

and **N/A**
and I have interpreted every question on the petition and Instructions and interpreted the petitioner's or authorized signatory's answers to the questions in that language, and the petitioner or authorized signatory informed me that they understood every instruction, question, and answer on the petition.

- 6.a. Interpreter's Signature
N/A
- 6.b. Date of Signature (mm/dd/yyyy) **N/A**

Part 10. Contact Information, Certification, and Signature of the Person Preparing this Petition, if Other Than the Petitioner or Authorized Signatory

Preparer's Full Name

1. Preparer's Family Name (Last Name)

HAVERROTH SILVA

Preparer's Given Name (First Name)

Otavio

2. Preparer's Business or Organization Name

HS Law Corp

Preparer's Contact Information

3. Preparer's Daytime Telephone Number

5102419336

4. Preparer's Mobile Telephone Number (if any)

5102419336

5. Preparer's Email Address (if any)

otavio@legalhs.com

Preparer's Certification and Signature

I certify, under penalty of perjury, that I prepared this petition for the petitioner or authorized signatory at their request and with express consent and that all of the responses and information contained in and submitted with the petition are complete, true, and correct and reflects only information provided by the petitioner or authorized signatory. The petitioner or authorized signatory reviewed the responses and information and informed me that they understand the responses and information in or submitted with the petition.

6. Preparer's Signature



Date of Signature (mm/dd/yyyy)

04/22/2026



Part 11. Additional Information

If you need extra space to provide any additional information within this petition, use the space below. If you need more space than what is provided, you may make copies of this page to complete and file with this petition or attach a separate sheet of paper. Type or print your name and A-Number (if any) at the top of each sheet; indicate the **Page Number**, **Part Number**, and **Item Number** to which your answer refers; and sign and date each sheet.

1. Family Name (Last Name)

LIMA DESSART

Given Name (First Name)

Rafael

Middle Name

N/A

2. IRS EIN

▶ N/A

3. Page Number

4

Part Number

6

Item Number

3

Provides overall leadership by setting the company's long-term vision, ensuring financial sustainability, and building strategic partnerships that support infrastructure resilience, water security, and environmental protection in line with U.S. priorities.

4. Page Number

N/A

Part Number

N/A

Item Number

N/A

5. Page Number

N/A

Part Number

N/A

Item Number

N/A

6. Page Number

N/A

Part Number

N/A

Item Number

N/A

7. Page Number

N/A

Part Number

N/A

Item Number

N/A



Application for Permanent Employment Certification
Form ETA-9089 – Final Determination: Permanent Employment Certification Approval
U.S. Department of Labor



PERMANENT EMPLOYMENT CERTIFICATION APPROVAL

A. U.S. Government Agency Use Only

Pursuant to the provisions of Sections 212(a)(5)(A) of the Immigration and Nationality Act, as amended, the Department hereby certifies that there are not sufficient workers who are able, willing, and qualified, and who will be available at the time of application for a visa and admission into the United States and place needed to fill the job opportunities for which certification is sought, and the permanent employment of the foreign worker will not adversely affect the wages and working conditions of workers in the United States similarly employed.

Therefore, by virtue of the signature below, the Department hereby acknowledges granting certification for the following *Application for Permanent Employment Certification* (Form ETA-9089):

1. DOL Case Number		2. Case Status	
3. Employer Legal Business Name		4. Employer FEIN	
5. Foreign Worker's Last (family) Name			
6. Foreign Worker's First (given) Name			
7. Foreign Worker's Middle Name(s)			
8. Job Title			
9. SOC Code		10. SOC Occupational Title	
Labor Certification Validity Information			
11. Filing Date		12. Determination Date	
		13. Expiration Date	
14. Department of Labor Office of Foreign Labor Certification (electronic signature)			

Pursuant to 20 CFR 656, the aforementioned permanent labor certification is valid only for the job opportunity, the foreign worker, and the area of intended employment specified on the approved Form ETA-9089, including all appendices and any modifications approved by the Department. The aforementioned filing date on this approved *Application for Permanent Employment Certification*, established under 20 CFR 656.17(c), may be used as a priority date by the Department of Homeland Security and the Department of State, as appropriate. This approved *Application for Permanent Employment Certification* will expire if not filed in support of *Immigrant Petition for Alien Workers* (Form I-140) with the Department of Homeland Security by the aforementioned expiration date.

The foreign worker covered by this approved *Application for Permanent Employment Certification* has declared under Section B below, under penalty of perjury, that the foreign worker has read and reviewed every page of Appendix A for this approved Form ETA-9089, takes full responsibility for the accuracy of all information contained therein, and intends to accept permanent employment in the job opportunity specified on the approved Form ETA-9089, including all appendices, offered by the employer if granted a visa or an adjustment of status based on this permanent labor certification.

The employer covered by this approved *Application for Permanent Employment Certification* has declared under Section D below under penalty of perjury that it has read and reviewed every page of this approved Form ETA-9089, including all appendices, and takes full responsibility for the accuracy of all information contained therein and all documentation supporting this approved *Application for Permanent Employment Certification*, including any representations made by the employer's authorized preparer, agent or attorney, as applicable.

Application for Permanent Employment Certification
Form ETA-9089 – Final Determination: Permanent Labor Certification Approval
U.S. Department of Labor



B. Foreign Worker Declaration

I **declare** under penalty of perjury that I have read and reviewed all information contained in Appendix A of this approved Form ETA-9089, and that to the best of my knowledge the information contained therein is true and accurate. *I understand that to knowingly and/or willfully furnish materially false information in the preparation of this form and any supplement thereto or to aid, abet, or counsel another to do so is a federal offense punishable by fines, imprisonment, or both (18 U.S.C. 2, 1001, 1546, 1621).*

I **further declare** that I am the person identified under Section A, Fields 5, 6, and 7 above. I did not participate in any activities involving the interviewing or consideration of U.S. workers and **intend to accept permanent employment** in the job opportunity specified on this approved Form ETA-9089, including all appendices, offered by the employer if granted a visa or an adjustment of status based on this permanent labor certification.

1. Signature *	2. Date Signed *
<i>Rafael Lima Derrout</i>	04/22/2026

C. Attorney or Agent Declaration

I **declare** under penalty of perjury that I am an attorney for the employer, or that I am an employee of, or hired by, the employer listed in Section C of the Form ETA-9089, and that I have been designated by that employer in accordance with 20 CFR 656.10(b) to act on its behalf in connection with this application.

I **hereby certify** that I have provided to the employer the entire Form ETA-9089, appendices, and all supporting documentation for review and to the best of my knowledge the information contained herein is true and accurate, including the employer's declaration regarding activities that I have undertaken on the employer's behalf in connection with this application. *I understand that to knowingly and/or willfully furnish materially false information in the preparation of this form and any supplement thereto or to aid, abet, or counsel another to do so is a federal offense punishable by fines, imprisonment, or both (18 U.S.C. 2, 1001, 1546, 1621).*

1. Attorney or Agent's Last (family) Name *	2. First (given) Name *	3. Middle Initial §
HAVERROTH SILVA	Otavio	N/A
4. Firm/Business Name § HS Law Corp		
5. Signature *	6. Date Signed *	
<i>[Signature]</i>	04/22/2026	

D. Employer Declaration

I **hereby designate** the agent or attorney identified in Section C (if any) of the Form ETA-9089 to represent me for the purpose of labor certification and, by virtue of my signature in Field 5 below, I **take full responsibility** for the accuracy of any representations made by my agent or attorney, and my designated preparer identified in Section C above, on every page of the Form ETA-9089, including all appendices, and documentation supporting this application.

I **declare** under penalty of perjury that I have read and reviewed this application, including every page of the Form ETA-9089, appendices, and supporting documentation, and that to the best of my knowledge the information contained therein is true and accurate. *I understand that to knowingly and/or willfully furnish materially false information in the preparation of this form and any supplement thereto or to aid, abet, or counsel another to do so is a federal offense punishable by fines, imprisonment, or both (18 U.S.C. 2, 1001, 1546, 1621).*

1. Last (family) Name *	2. First (given) Name *	3. Middle Initial §
4. Title *		
5. Signature *	6. Date Signed *	

For Public Burden Statement, see the Instructions for Form ETA-9089.

Application for Permanent Employment Certification
Form ETA-9089 – Appendix A: Foreign Worker Information
U.S. Department of Labor



FOREIGN WORKER INFORMATION

A. Foreign Worker Contact Information

1. Foreign Worker's Last (family) Name *		
LIMA DESSART		
2. Foreign Worker's First (given) Name *		
Rafael		
3. Foreign Worker's Middle Name(s) *		
N/A		
4. Address 1 (current) *		
Casemiro de Abreu 170		
5. Address 2 (apartment/suite/floor and number) §		
Apt 101		
6. City *	7. State *	8. Postal Code *
Porto Alegre	N/A	90420000
9. Country *	10. Province §	
Brazil	Rio Grande do Sul	
11. Date of Birth (mm/dd/yyyy) *	12. Class of Admission *	13. Alien Registration Number (A#) (if applicable) *
08/20/1975		N/A
14. Country of Birth *		
Brazil		
15. Country of Citizenship or Nationality *		
Brazil		

B. Foreign Worker Education §

a. Educational Attainment Information 1

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate ☐ Bachelor's ☐ Master's ☒ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field)	
Water Resources and Environmental Sanitation	
1c. Name of Institution that issued the degree/diploma	
Federal University of Rio Grande do Sul - UFRGS	
1d. Name of Country of institution identified in question 1c	1e. Month/year attained (mm/yyyy)
Brazil	11/2022

b. Educational Attainment Information 2

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate ☐ Bachelor's ☒ Master's ☐ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field)	
Geology	
1c. Name of Institution that issued the degree/diploma	
University of Vale do Rio dos Sinos - UNISINOS	
1d. Name of Country of Institution identified in question 1c	1e. Month/year attained (mm/yyyy)
Brazil	08/2010

Application for Permanent Employment Certification
Form ETA-9089 – APPENDIX A: Foreign Worker Information
U.S. Department of Labor



B. Foreign Worker Education (continued)

c. Educational Attainment Information 3

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate ☐ Bachelor's ☐ Master's ☐ Doctorate (PhD) ☒ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained Specialization	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field) Georeferenced Spatial Information	
1c. Name of Institution that issued the degree/diploma University of Vale do Rio dos Sinos- UNISINOS	
1d. Name of Country of Institution identified in question 1c Brazil	1e. Month/year attained (mm/yyyy) 08/2013

d. Educational Attainment Information 4

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate's ☒ Bachelor's ☐ Master's ☐ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field) Geology	
1c. Name of Institution that issued the degree/diploma University of Vale do Rio dos Sinos - UNISINOS	
1d. Name of Country of Institution identified in question 1c Brazil	1e. Month/year attained (mm/yyyy) 12/2003

e. Educational Attainment Information 5

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate's ☐ Bachelor's ☐ Master's ☐ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field)	
1c. Name of Institution that issued the degree/diploma	
1d. Name of Country of Institution identified in question 1c	1e. Month/year attained (mm/yyyy)

C. Foreign Worker Training Qualifications §

a. Training, Certification(s), and/or License(s) Information 1

1. Name of Institution/School/Training provider Oficina de Textos
1a. Name of training, coursework, experience received Short Course in Applied Geophysics in Groundwater Contamination

Application for Permanent Employment Certification
Form ETA-9089 – APPENDIX A: Foreign Worker Information
U.S. Department of Labor



1b. Training/Certifications/licenses attained (if applicable)		
1c. Start date of training (mm/yyyy)	1d. End date of training (mm/yyyy)	1e. Month/year awarded (mm/yyyy) 2019

b. Training, Certification(s), and/or License(s) Information 2

1. Name of Institution/School/Training provider Oficina de Textos		
1a. Name of training, coursework, experience received Short course in Geological Geotechnical Investigation for Infrastructure Works		
1b. Training/Certifications/Licenses attained (if applicable)		
1c. Start date of training (mm/yyyy)	1d. End date of training (mm/yyyy)	1e. Month/year awarded (mm/yyyy) 2018

c. Training, Certification(s), and/or License(s) Information 3

1. Name of Institution/School/Training provider Federal University of Pampa - UNIPAMPA		
1a. Name of training, coursework, experience received Short course in Gamma Spectrometry: Concepts and applications in mineral exploration		
1b. Training/certifications/licenses attained (if applicable)		
1c. Start date of training (mm/yyyy)	1d. End date of training (mm/yyyy)	1e. Month/year awarded (mm/yyyy) 2017

D. Foreign Worker Training Qualifications §

a. Skills, Abilities, and Proficiencies 1

1. Name of Employer/Institution/School/Training Provider	
1a. Country	1b. State, Territory, or Province
1c. Description of specific skills, abilities, and/or proficiencies the foreign worker possesses or attained, which help establish whether the foreign worker meets the requirements identified for the job opportunity (<i>up to 1,500 characters</i>)	

--

1. Name of Employer/Institution/School/Training Provider	
1a. Country	1b. State, Territory, or Province
1c. Description of specific skills, abilities, and/or proficiencies the foreign worker possesses or attained, which help establish whether the foreign worker meets the requirements identified for the job opportunity (<i>up to 1,500 characters</i>)	

1. Employer Name N/A			
1a. Address 1 Casemiro de Abreu 170			
1b. Address 2 Apt 101			
1c. City or Town Porto Alegre			1d. Postal Code 90420000
1e. Country Brazil		1f. State, Territory, or Province Rio Grande do Sul	
1g. Job Title Geologist			
1h. Start Date (mm/yyyy) 2016	1i. End Date (mm/yyyy) Current	1j. Present ☒ Yes ☐ No	1k. Hours Worked Per Week 40



Application for Permanent Employment Certification
Form ETA-9089 – APPENDIX A: Foreign Worker Information
U.S. Department of Labor

11. Job Duties: Specify details of the job (work tasks performed, use of tools/equipment, supervision, etc.) (*up to 3,500 characters*)

Provided geology and environmental consulting services involving geological and topographic analysis, groundwater mapping, and evaluation of deep tubular wells for projects of varying scale. Collected, monitored, and interpreted soil, water, and effluent data to assess contamination, stability, and environmental risks, supporting infrastructure works and land-use planning. Prepared technical reports, environmental impact studies (EIA/RIMA, RAP, RAS), permits, and regulatory documentation, while supporting environmental licensing and ensuring compliance with applicable legislation. Conducted field inspections, prepared non-compliance and technical assessment reports, and developed projects aimed at mitigating environmental impacts and managing natural resources.

For Public Burden Statement, see the Instructions for Form ETA-9089.

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor



SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 4 Name of institution: American Museum of Natural History Name of training: Short course in The Dynamic Earth: A Course for Educators Month/year awarded: 2015			

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 5 Name of institution: National Institute for Space Research, INPE Name of training: Remote Sensing: Continuing Education Month/year awarded: 2014			

For Public Burden Statement, see the Instructions for Form ETA-9089.

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor



SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 6 Name of institution: Brazilian Society of Geophysics, SBGF Name of training: Short course in Applied Geophysics to Mineral Exploration Month/year awarded: 2014			

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 7 Name of institution: Federal University of Pampa, UNIPAMPA Name of training: Short course in Pedagogical Training Month/year awarded: 2014			

For Public Burden Statement, see the Instructions for Form ETA-9089.

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor



SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 8 Name of institution: Mundogeo Name of training: Short course in Google Products - Enhancing the use of maps Month/year awarded: 2013			

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 9 Name of institution: Mundogeo Name of training: Short course in GIS day: Connected to the future through Geocollaboration Month/year awarded: 2012			

For Public Burden Statement, see the Instructions for Form ETA-9089.

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor



SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 10 Name of institution: Allcomp Name of training: Short course in Update in Topography and Geodesy Month/year awarded: 2012			

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 11 Name of institution: Brazilian Association of Sanitary and Environmental Engineering Name of training: Short course in Geotechnologies for Natural Disasters Month/year awarded: 2010			

For Public Burden Statement, see the Instructions for Form ETA-9089.

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor



SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 12 Name of institution: Brazilian Association of Groundwater Name of training: Short course in I Workshop: Groundwater Management Month/year awarded: 2003			

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 13 Name of institution: University of Vale do Rio dos Sinos, UNISINOS Name of training: University extension course in Techniques and Procedures for Working with Fossils Month/year awarded: 2000			

For Public Burden Statement, see the Instructions for Form ETA-9089.

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor



SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 14 Name of institution: National Service for Commercial Learning – RS, SENAC/RS Name of training: Short course in Word for Windows Month/year awarded: 1995			

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 15 Name of institution: National Service for Commercial Learning – RS, SENAC/RS Name of training: Short course in Excel Month/year awarded: 1995			

For Public Burden Statement, see the Instructions for Form ETA-9089.

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor



SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 16 Name of institution: National Service for Commercial Learning - RS, SENAC/RS Name of training: Short course in Windows Month/year awarded: 1994			

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 17 Name of institution: National Service for Commercial Learning - RS, SENAC/RS Name of training: Short course in PC Microcomputer Operator Month/year awarded: 1994			

For Public Burden Statement, see the Instructions for Form ETA-9089.

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor



SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications
1b. Supplemental Information. (up to 1,500 characters)			
Training, Certification(s), and/or License(s) Information 18 Name of institution: National Service for Commercial Learning - RS, SENAC/RS Name of training: Short course in Microcomputing - Introduction to the Area Month/year awarded: 1994			

B. Supplemental Information 2 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	Foreign Worker Work Experience
1b. Supplemental Information. (up to 1,500 characters)			
Work Experience 2 Employer name: Federal University of Pampa - UNIPAMPA Address of Employer: 1650 Maria Anunciacao Gomes Godoy Avenue. Bage - Rio Grande do Sul/Brazil 96460000 Job title: Substitute Professor of Higher Education Start date - End date: 2013 - 2015 Job duties: Responsible for implementing the pedagogical curriculum through teaching courses in Geology, Geophysics, Mining Technology, and Environmental and Sanitary Engineering, with emphasis on Remote Sensing, GIS, Topography, Earth Systems, Hydrogeology, Geomorphology, Climatology, and Hydrology. Delivered full course content and scheduled classes while fostering student engagement, critical thinking, and continuous learning. Participated in examining committees, co-supervised and evaluated academic works, and published scientific articles aligned with institutional research projects. Encouraged the use of bibliographic resources to support reflective learning and maintained accurate electronic records of attendance, course content, and student performance in accordance with the academic calendar			

For Public Burden Statement, see the Instructions for Form ETA-9089.

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor



SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	Foreign Worker Work Experience
1b. Supplemental Information. (up to 1,500 characters)			
Work Experience 3 Employer name: FTGEO Consultoria Address of Employer: 230, 13 de maio street. Apto 701. Estrela - Rio Grande do Sul Brazil 95880000 Job title: Geologist Start date - End date: 2013 - 2013 Job duties: Provided environmental and geological advisory and consulting services to small and large companies, delivering solutions across geology, environmental management, and geoprocessing activities. Prepared Environmental Control Reports and Plans (RCA and PCA) and Annual Mining Reports (RAL), conducted geophysical analyses using electrical resistivity methods to identify groundwater fractures, and supported the permitting and siting of deep tubular wells. Managed environmental licensing processes, including analysis of legal environmental documentation and interpretation of applicable legislation, and prepared geological and geotechnical reports with technical specifications to support project approval.			

B. Supplemental Information 2 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	Foreign Worker Work Experience
1b. Supplemental Information. (up to 1,500 characters)			
Work Experience 4 Employer name: Geomap Geologia LTDA Address of Employer: 285 Coronel Flores. Estrela - Rio Grande do Sul/Brazil 95880000 Job title: Geologist Start date - End date: 2011 - 2013 Job duties: Provided environmental licensing advisory and consulting services to small and large mining companies, preparing reports, technical opinions, and geotechnical assessments. Developed environmental reports for civil construction projects, identifying suitable areas for implementation, and conducted topographic surveys to evaluate site morphology. Performed environmental liability assessments at fuel stations, preparing technical reports for license renewals and identifying contamination levels. Defined suitable landfill locations in compliance with environmental legislation, organized and quality-controlled geological databases, and engaged with local communities to obtain authorization for work on private and communal lands			

For Public Burden Statement, see the Instructions for Form ETA-9089.

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor



SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	Foreign Worker Work Experience
1b. Supplemental Information. (up to 1,500 characters)			
Work Experience 5 Employer name: Neocorp Desenvolvimento de Projetos LTDA Address of Employer: 1350 Duque de Caxias. Porto Alegre - Rio Grande do Sul/Brazil 90010281 Job title: Geologist Start date - End date: 2008 - 2009 Job duties: Provided environmental and geological advisory and consulting services to small and large companies, including the development and implementation of geophysical survey methods. Processed and analyzed bathymetric data for data acquisition and treatment, prepared Environmental Impact Studies and Reports (EIA/RIMA), and assessed soil and water contamination. Conducted geophysical investigations using GPR to detect buried contaminants, supported site selection through water and soil sampling for laboratory analysis, evaluated areas for landfill location, and carried out feasibility studies for the siting of small hydroelectric plants (PCH).			

B. Supplemental Information 2 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	Foreign Worker Work Experience
1b. Supplemental Information. (up to 1,500 characters)			
Work Experience 6 Employer name: University of Vale do Rio dos Sinos - UNISINOS Address of Employer: 950 Unisinos Avenue. Sao Leopoldo - Rio Grande do Sul/Brazil 93022750 Job title: Geologist Start date - End date: 2005 - 2008			

For Public Burden Statement, see the Instructions for Form ETA-9089.

SUMMARY OF COVER LETTER

Petitioner: **Dessart, Rafael Lima**

Type of Petition: **I-140, EB-2 National Interest Waiver**

Classification Sought: **Immigration and Nationality Act 203(b)(2)(B)**

This petition is submitted on behalf of Dr. Rafael Lima Dessart, a Geologist and Environmental Scientist with a Ph.D. in Water Resources and Environmental Sanitation and over twenty-two (22) years of professional experience in geosciences. Dr. Dessart holds a Doctorate from the Federal University of Rio Grande do Sul (UFRGS) and a Master's Degree in Geology from the University of Vale do Rio dos Sinos (UNISINOS), in addition to professional licensure (CREA) and extensive experience in hydrogeology, environmental licensing, applied geophysics, and geological risk mitigation.

Dr. Dessart seeks a National Interest Waiver to establish and lead EarthLog Consulting a U.S.-based environmental and geoscience consulting firm **specializing in hydrogeological investigation, groundwater resource management, applied geophysics for infrastructure projects, environmental licensing and compliance, and geohazard risk mitigation.** The proposed endeavor addresses critical U.S. needs related to water security, climate resilience, and infrastructure protection.

Dr. Dessart satisfies the *Matter of Dhanasar* framework for a National Interest Waiver:

1. **Substantial Merit and National Importance:** Dr. Dessart's proposed endeavor directly addresses critical gaps in U.S. water resource management, infrastructure resilience, and disaster prevention. Through advanced hydrogeological modeling, geophysical investigation, and environmental compliance services, the endeavor aligns with national priorities reflected in initiatives such as the Infrastructure Investment and Jobs Act, Executive Order 14008, and the Clean Water Act. By addressing challenges including groundwater depletion, soil instability, and geological hazards, Dr. Dessart's work supports public safety, environmental protection, and economic stability, demonstrating clear national importance.
2. **Well-Positioned to Advance the Proposed Endeavor:** Dr. Dessart's qualifications, including a Ph.D. in Water Resources and Environmental Sanitation, a Master's Degree in Geology, and more than twenty-two (22) years of progressively responsible experience in environmental consulting and hydrogeology, establish that he is well positioned to advance the proposed endeavor. Independent letters of support from geoscience professionals corroborate his ability to apply advanced technical expertise to water resource management and infrastructure protection. His professional certifications, managerial experience, academic teaching experience at the Federal University of Pampa, and scientific publications further support his capacity to carry out the proposed activities.
3. **Balancing of Benefits to the United States:** Requiring labor certification would be impractical given the entrepreneurial and project-based nature of Dr. Dessart's work. His proposed endeavor is expected to generate substantial public benefits, including the creation of thirteen (13) high-skilled STEM jobs by Year 5, meaningful tax contributions, and the provision of specialized geoscience services to federal and state agencies, water utilities, and private-sector stakeholders, supporting a waiver of the job offer and labor certification requirements.

In light of these considerations, Dr. Dessart meets all of the criteria for a National Interest Waiver. His efforts through EarthLog Consulting will create jobs, expand access to specialized geoscience services, advance public safety and environmental protection, and provide significant benefits to the United States. We respectfully request that this petition be adjudicated favorably.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Otavio Haver'.

Otavio Haver, otH Silva
California Bar # 343486

April 07, 2026.

VIA USPS

USCIS
Attn: I-140
P.O. Box 660128
Dallas, TX 75266-0128

Ref: I-140 Immigrant Visa Self-Petition of Dr. Rafael Lima Dessart– Request for National Interest Waiver under the EB-2 Classification

STEM PROFESSIONAL AND PROPOSED ENDEAVOR

CIP Code 40.0605 – Hydrology and Water Resources Science

CIP Code 40.0601 – Geology/Earth Science, General

Dear Immigration Officer,

Please note that our firm represents **Dr. Rafael Lima Dessart (hereinafter “Dr. Dessart”)** in his I-140 immigrant visa self-petition under the EB-2 category. We respectfully request his classification as a professional holding an **advanced degree**, and **we seek a waiver of the job offer and labor certification** requirements pursuant to a National Interest Waiver (NIW), as provided under section 203(b)(2)(B)(ii) of the Immigration and Nationality Act and interpreted by the USCIS in *Matter of Dhanasar*, 26 I&N Dec. 884 (AAO 2016).

Dr. Dessart is a distinguished Geologist and Environmental Scientist with a Ph.D. in Water Resources and Environmental Sanitation and over 22 years of experience in geosciences. His career is defined by high-level expertise in hydrogeology, environmental licensing, and the mitigation of geological risks, fields that are critical for the United States' national security, public health, and infrastructure resilience. With a robust academic background from the Federal University of Rio Grande do Sul (UFRGS) and University of Vale do Rio dos Sinos (UNISINOS) and a prolific professional record involving complex environmental assessments for both public and private sectors, Dr. Dessart stands as a premier expert in safeguarding vital natural resources.

Through his proposed endeavor, executed via EarthLog Consulting, a U.S.-based specialized technical firm, **Dr. Dessart will provide critical services in Water Resource Management, Hydrogeological Risk Mitigation, and Environmental Compliance.** His initiative directly addresses the growing U.S. demand for science-based solutions to combat water scarcity, protect groundwater quality, and ensure the stability of infrastructure against geological hazards. EarthLog Consulting is designed to bridge the gap between advanced geological research and practical environmental engineering, providing the U.S. market with the expertise needed to manage aquifers and contaminated sites under increasingly stringent regulatory and climatic conditions.

The national importance of Dr. Dessart's work is underscored by the urgent need for climate resilience and water security in the United States. His endeavor aligns with federal priorities, including the protection of critical infrastructure and the promotion of sustainable environmental practices. By applying his advanced doctoral-level knowledge to the U.S. environmental sector, Dr. Dessart will contribute to the long-term safety and economic stability of American communities.

Once Dr. Dessart's classification is established, in accordance with the framework established in *Matter of Dhanasar*, we will demonstrate that:

- **His proposed endeavor has substantial merit and national importance**, particularly in strengthening the resilience of U.S. water systems and protecting public infrastructure from geological disasters— **Section 3.1**;
- **He is exceptionally well-positioned to advance this endeavor**, supported by his Ph.D., his extensive record of technical leadership in over 20 years of practice, and his recognized contributions to the field of geosciences— **Section 3.2**; and
- **On balance, it is clearly in the interest of the United States to waive the job offer and labor certification requirements** to enable the immediate application of Dr. Dessart's specialized skills to these pressing national environmental challenges – **Section 3.3**.

The evidence enclosed with this petition, including Dr. Dessart's doctoral credentials, professional certifications such as CREA, and the comprehensive Business Plan for EarthLog Consulting, will establish, by a preponderance of the evidence, that his presence in the United States will provide a significant benefit to the nation.

1. THE EB-2 CLASSIFICATION

1.1 ADVANCED DEGREE

To qualify as a member of the professions holding an advanced degree under the EB-2 category, the Petitioner must demonstrate possession of either a U.S. advanced degree or its foreign equivalent. Dr. Rafael Lima Dessart fully meets the regulatory requirements of this classification through his foreign advanced degrees in geology and water resources/environmental sanitation, and through a professional record that is consistent with advanced-degree level practice in the geosciences.

Dr. Dessart holds a Ph.D. (Doctorate) in Environment / Water Resources and Environmental Sanitation from the Federal University of Rio Grande do Sul (UFRGS)¹, completed in 2022 (Exhibit B). His doctoral research, titled "*Integration of geophysical and structural data in hydrogeological investigation in the municipality of Bagé/RS*"², focused on improving the accuracy of hydrogeological investigations and groundwater well siting through integrated geophysical/structural analysis (Exhibit C).

In addition, **Dr. Dessart holds a master's degree in Geology (Sedimentary Geology)** from the **University of Vale do Rio dos Sinos (UNISINOS)**³, completed in 2009 (Exhibit B). His master's thesis, "*Stratigraphic characterization of the incised valley fill of the Lower Doce River during the Late Pleistocene–Holocene*,"⁴ demonstrates advanced scientific training in stratigraphy, basin

¹ <https://www.ufrgs.br/site/a-ufrgs/apresentacao/>

² <https://aguassubterraneas.abas.org/asubterraneas/article/view/29557>

³ <https://www.unisinos.br/institucional>

⁴ <https://repositorio.jesuita.org.br/handle/UNISINOS/3978>

analysis, and applied geoscience methods (Exhibit C).

Dr. Dessart also holds a **bachelor's degree in Geology from UNISINOS (2003)** and a **Postgraduate Specialization in Georeferenced Spatial Information (2013)**, further strengthening the technical foundation directly relevant to his proposed endeavor in hydrogeology, environmental geology, applied geophysics, and GIS/geoprocessing (Exhibit B). Taken together, this academic background has been deemed equivalent to a U.S. Bachelor of Science in Geology, Master of Science Degree in Geological Sciences, One Year of Graduate Study in Geographic Information Systems and Doctor of Philosophy in Water Resources:

Academic Equivalency in the United States BACHELOR OF SCIENCE IN GEOLOGY MASTER OF SCIENCE DEGREE IN GEOLOGICAL SCIENCES ONE YEAR OF GRADUATE STUDY IN GEOGRAPHIC INFORMATION SYSTEMS DOCTOR OF PHILOSOPHY IN WATER RESOURCES

In addition to these academic qualifications, **Dr. Dessart possesses at least twenty-two (22) years of experience in environmental geology, hydrogeology, geotechnical evaluation, applied geophysics, environmental licensing, and GIS-based projects**, including both private-sector roles and independent consulting (Exhibit A). He has consistently performed advanced technical work involving environmental assessments, groundwater exploration, geophysical surveying, environmental compliance documentation, and technical reporting supporting regulated activities.

Attached please find his *curriculum lattes* and professional evidence (Exhibits A and B), as summarized below:

- **2016 to Present – Owner / Lead Geologist, Independent Environmental Geology Consulting (DGEO), Brazil (Full-time):** Dr. Dessart has provided geology consulting focused on environmental analysis, including geological mapping, analysis and reporting for deep tubular wells, groundwater mapping and water resources management, monitoring of water/effluent/soil samples, environmental license updates and compliance reporting, and preparation of environmental studies such as EIA/RIMA, RAP, and PCA (Brazilian environmental instruments for assessing and managing project impacts), among others.
- **2013 to 2015 – Substitute Professor (Federal Higher Education), Federal University of Pampa⁵ (UNIPAMPA), Brazil (Full-time):** Dr. Dessart served as a substitute professor teaching across Geology, Geophysics, Mining Technology, and Environmental and Sanitary Engineering programs. He taught courses including Remote Sensing, GIS/GPS, Hydrogeology, Geomorphology, Climatology, Hydrology, Cartography, and Topography, participated in thesis committees, and contributed to academic publications connected to executed projects.
- **2013 – Geologist / Environmental Geology Consultant, FTGEO Consultoria, Brazil (Full-time):** Dr. Dessart provided environmental geology consulting, prepared environmental control reports and plans (RCAP/PCA) and annual mining reports (RAL),

⁵ <https://unipampa.edu.br/portal/universidade>

performed geophysical surveys (electrical resistivity) to identify fractures favorable for groundwater, supported the granting and siting of deep tubular wells, and conducted environmental licensing analyses with interpretation of applicable environmental legislation.

- **2011 to 2013 – Geologist, Geomap Geologia LTDA (GEOMAR), Brazil (Full-time):** Dr. Dessart provided environmental licensing consulting for companies in mining and other sectors, producing technical reports, expert opinions, and geophysical analyses; prepared environmental reports for civil construction; conducted topographic/morphological assessments; evaluated environmental liabilities (e.g., fuel stations) for contamination and remediation planning; supported landfill site selection under applicable environmental regulations; organized geological databases and conducted quality control; and engaged with local communities to secure access permissions for field work.
- **2008 to 2009 – Geologist, Neocorp Desenvolvimento de Projetos LTDA, Brazil (Full-time):** Dr. Dessart provided environmental geology consulting and implemented/advanced geophysical survey methods; processed and analyzed bathymetric data; prepared EIA/RIMA studies; investigated soil and groundwater contamination (including methods such as GPR) with sampling for laboratory analysis; supported landfill siting studies; and participated in studies for siting small hydroelectric plants (PCH).
- **2003 to 2008; 2009 to 2011; and 2013 – Independent Professional / Consultant (Brazil; Southern States and Conesul Region):** Dr. Dessart worked as an independent consultant across multiple engagements, building extensive applied experience in geology, environmental work, and geoprocessing in diverse regional contexts.

Thus, Dr. Dessart qualifies as a member of the advanced degree professions under INA §203(b)(2), as he holds a Ph.D. in Water Resources and Environmental Sanitation and a master's degree in Geology.

Although eligibility for the EB-2 category requires meeting the advanced degree criterion or the exceptional ability criterion, this petition is primarily based on Mr. Oliveira's qualifications as a professional with an advanced degree. Alternatively, the evidence also demonstrates that he meets the standard of exceptional ability, further confirming his eligibility for the EB-2 classification.

2. THE PROPOSED ENDEAVOR

Dr. Dessart's proposed endeavor consists of establishing and leading EarthLog Consulting, a specialized environmental and geoscience consulting firm initially based in Orlando, Florida, with a phased expansion strategy across the Southeastern United States. As detailed in the Business Plan (Exhibit C.I), the company will focus on advanced hydrogeological investigation, applied geophysics, and regulatory-compliant environmental assessments in regions experiencing rapid urbanization, groundwater stress, and geotechnical risk.

The company's core mission is to provide advanced, data-driven geological and hydrogeological solutions that help organizations secure sustainable water supplies, ensure the safety and stability of physical infrastructure, comply with complex U.S. environmental regulatory frameworks, and mitigate the impact of natural disasters through precise subsurface modeling.

According to the business plan (Exhibit C.I), EarthLog Consulting will provide services including:

- **Hydrogeological Investigation and Groundwater Management:** Providing strategic assessments for deep well siting, aquifer characterization, and sustainable yield modeling to combat drought and ensure water security for municipal and agricultural sectors.
- **Applied Geophysics for Infrastructure and Mining:** Utilizing non-invasive methods (such as GPR, electrical resistivity, and magnetometry) to assess soil stability, detect subsurface anomalies, and support the safe construction of roads, dams, and large-scale facilities.
- **Environmental Licensing and Compliance Auditing:** Leading projects to secure environmental permits, conducting Environmental Impact Statements (EIS), and ensuring adherence to state and federal regulations for land use and resource extraction.
- **Geohazard Mitigation and Disaster Recovery:** Developing robust risk assessment plans for landslides, erosion, and ground subsidence, providing technical expertise to restore environmental integrity following natural or industrial disasters

EarthLog Consulting will meet the urgent and growing demand for specialized geoscience expertise in sectors of national relevance. The increasing frequency of extreme weather events, such as the extreme hit⁶, the critical need for resilient water infrastructure, and the complexity of environmental protection standards underscore the necessity of such an endeavor and create a sustained need for advanced hydrogeological and geophysical consulting.⁷ Between 2011 and 2024, 99.5% of U.S. congressional districts experienced at least one federally declared major disaster due to extreme weather, costing taxpayers \$117.9 billion in federal relief.⁸ Federal agencies, including FEMA and CISA, have emphasized the growing need to improve infrastructure resilience across all 16 critical infrastructure sectors.⁹

Launching its operations in Orlando, Florida, EarthLog Consulting already has a strategic roadmap for expansion to other key regions across the United States, including Texas, California, and the Southwest, where water management and soil stability are paramount. The company's implementation plan includes a phased approach: from the beginning, EarthLog Consulting will leverage advanced GIS and remote sensing platforms to deliver scalable geological modeling; in subsequent phases, it will expand its operations to include specialized field crews for high-resolution geophysical surveys and comprehensive environmental compliance audits.

Furthermore, **EarthLog Consulting's projected growth underscores its economic impact.** According to the business plan (Exhibit C.I), company revenue is expected to grow from \$486,500.00 in Year 1 to over \$1.57 million (\$1,575,712.33) in Year 5, with gross margin rising from \$443,760.50 to approximately \$1.44 million (\$1,444,931.41) and net profit increasing from \$9,621.98 to \$249,911.87 over the same period. The company's expansion strategy, which includes establishing a strong base in Florida and progressively extending operations to other high-demand regions, further underscores its potential to become a significant contributor to the U.S. economy in the environmental and engineering services sectors.

⁶ <https://www.gao.gov/products/gao-25-107474>

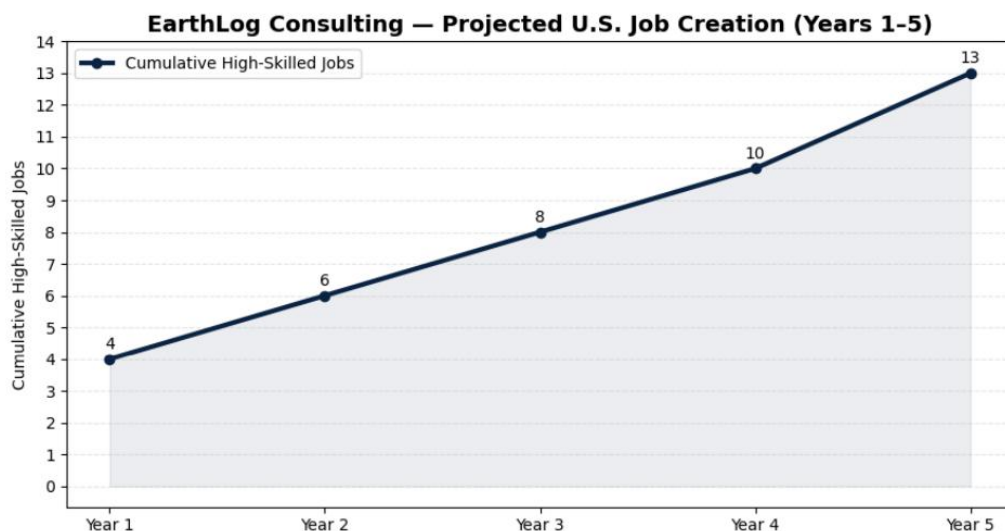
⁷ <https://www.fema.gov/fact-sheet/fema-administrator-deanne-criswells-remarks-esri-user-conference>

⁸ <https://rebuildbydesign.org/atlas-of-disaster/>

⁹ <https://www.cisa.gov/topics/critical-infrastructure-security-and-resilience/extreme-weather>

Profit and Loss - EarthLog Consulting					
	Year 1	Year 2	Year 3	Year 4	Year 5
Sales	\$486,500.00	\$718,940.00	\$1,038,090.65	\$1,286,139.68	\$1,575,712.33
Gross Margin	\$443,760.50	\$657,773.96	\$949,852.46	\$1,178,107.95	\$1,444,931.41
Net Profit	\$9,621.98	\$40,564.21	\$79,915.87	\$150,106.04	\$249,911.87

EarthLog Consulting's business plan outlines **significant job creation** as a core element of the company's growth model. **EarthLog Consulting aims to expand its workforce from a core multidisciplinary team of four (4) professionals in its first year to thirteen (13) highly skilled positions by year five.** This growth, driven by increasing market demand for its specialized services in hydrogeology, applied geophysics, and environmental compliance, is expected to generate meaningful contributions to both local employment in Florida and the broader national labor market in high-skilled STEM and professional roles.



The company's projected financial performance will generate substantial public revenue contributions across multiple tax categories, including federal income tax, state business taxes, and employment-related obligations such as Social Security, Medicare, and unemployment insurance. Over a five-year period, taxes incurred (income taxes) are projected to total approximately \$167,406.31, while payroll taxes are projected to total approximately \$321,700.00, reflecting EarthLog Consulting's expanding workforce and increasing compensation base, as detailed in the Profit and Loss projections (Business Plan, Exhibit C.I).

As the company scales and employs thirteen (13) highskilled fulltime professionals by Year 5, its growing payroll tax contributions will provide sustained support to both local and national tax systems. In addition, total direct payroll investment of approximately \$3.25 million over five years, together with ongoing operational expenditures, including rent (approximately \$180,000 over five years), marketing and promotion (approximately \$75,000 over five years), and employee education and training (approximately \$24,000 over five years), will generate secondary economic activity and indirect tax revenues through EarthLog Consulting's suppliers, service providers, and commercial partners (Business Plan, Exhibit C.I, Sections 3.2 and Profit and Loss).

Profit and Loss - EarthLog Consulting					
	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses					
Payroll	\$333,000.00	\$488,000.00	\$686,000.00	\$800,000.00	\$910,000.00
Payroll Taxes	\$33,300.00	\$48,800.00	\$68,600.00	\$80,000.00	\$91,000.00
Taxes Incurred	\$3,038.52	\$12,809.75	\$25,236.59	\$47,401.91	\$78,919.54

These direct and indirect tax revenues represent a meaningful reinvestment into the U.S. economy and further illustrate how the proposed endeavor aligns with national economic priorities related to infrastructure resilience, environmental protection, sustainable land and water resource management, and workforce development in highskilled STEM fields.

In summary, EarthLog Consulting will address urgent needs in hydrogeology, groundwater security, environmental compliance, applied geophysics, and geohazard risk mitigation, supporting essential public and private sector activities while simultaneously contributing to economic growth through sustained business development, job creation, and longterm payroll and tax contributions.

The company's vision, service portfolio, and phased expansion roadmap reflect a forwardlooking approach to sustainable development, climate resilience, and infrastructure safety. Additional information regarding EarthLog Consulting's operational strategy, market integration, and projected contributions to national interests can be found in the attached business plan (Exhibit C.I) and will be further detailed in the subsequent sections analyzing the endeavor's substantial merit and national importance.

3. NATIONAL INTEREST WAIVER Framework Under *Matter of Dhanasar*

The national interest waiver (NIW) provides a pathway for qualified individuals to forgo the traditional labor certification and job offer requirements when their contributions promise significant benefits to the United States. Under section 203(b)(2)(B)(ii) of the Immigration and Nationality Act, and pursuant to 8 C.F.R. § 204.5(k)(4)(ii), USCIS may waive these requirements when it is determined that doing so is in the national interest.

In *Matter of Dhanasar*, 26 I&N Dec. 884 (AAO 2016), USCIS introduced a modernized, three-prong framework for evaluating NIW eligibility. This framework requires that the petitioner demonstrate:

1. The First Prong – endeavor has substantial merit and national importance – reviews the importance of the field and the specific endeavor the petitioner aims to undertake.
2. The Second Prong– the individual is well-positioned to advance the endeavor – reviews the beneficiary's credentials.
3. =The Third Prong – beneficial to the U.S. to waive the job offer and labor certification requirement – reviews the national interest.

Dr. Dessart clearly satisfies all three prongs of this standard. As an accomplished geoscientist and environmental consultant with more than twentytwo (22) years of professional experience in geology, hydrogeology, applied geophysics, and

environmental licensing, he is well positioned to lead EarthLog Consulting, a specialized geoscience firm focused on groundwater resource assessment, subsurface characterization for infrastructure projects, geohazard risk mitigation, and environmental regulatory compliance across the United States.

His proposed endeavor addresses matters of clear national relevance, including the scientific management of water resources, the protection of critical waterrelated infrastructure, and the reduction of geological risks affecting communities and economic activity, particularly in the context of increasing climate variability. Through EarthLog Consulting, Dr. Dessart will apply his domainspecific expertise, developed through decades of applied environmental projects and academic engagement, to deliver advanced hydrogeological analyses, noninvasive geophysical investigations, and technically rigorous environmental compliance support aligned with applicable federal and state standards.

Requiring labor certification in this context would be counterproductive to the national interest, as it would delay the contribution of a professional whose work is projectbased, technically specialized, and not tied to a single employer. Given the urgent national need to address increasing extreme weather events and infrastructure vulnerabilities, Dr. Dessart's experience, including his Ph.D. research on the integration of geophysical and structural data for groundwater exploration, together with his record of impact in environmental licensing and geotechnical assessments, positions him to address complex geoscience challenges requiring advanced scientific judgment and interdisciplinary analysis.

Furthermore, Dr. Dessart's endeavor resides within a nationally recognized STEM field, including Geology/Earth Science (CIP Code 40.0601) and Hydrology and Water Resources Science (CIP Code 40.0605), and aligns with federal objectives related to resource conservation, public safety, infrastructure resilience, and environmental sustainability. His work further aligns with current U.S. policy priorities aimed at attracting and retaining global talent in critical STEM fields to address climate-related risks and strengthen national resilience. His leadership of EarthLog Consulting is expected to promote public welfare and economic stability by supporting the responsible management of water resources and the protection of physical infrastructure essential to the U.S. economy.

As demonstrated in the sections that follow, Dr. Dessart's qualifications and the national scope of his proposed endeavor fully justify the waiver of the labor certification and job offer requirements.

3.1 First PRONG:

The Proposed Endeavor has Substantial Merit and National Importance

Under *Matter of Dhanasar*, the "national importance" of an endeavor is not limited by geographic scope but is assessed by its potential to address issues of national relevance. Local or regional projects can qualify if they tackle problems affecting the country at large.

Dr. Dessart's proposed endeavor consists of pursuing his professional activities in the fields of hydrogeology, applied geophysics, environmental geology, and infrastructure risk mitigation, through the establishment and operation of EarthLog Consulting as the professional platform to deliver these services. The proposed endeavor has clear substantial merit and national importance, as it addresses matters of national relevance related to groundwater security, sustainable water resource management, environmental regulatory compliance, and the prevention of geohazards that threaten communities, physical infrastructure, and economic activity across the United States.

Through EarthLog Consulting, Dr. Dessart proposes to deliver advanced, data-driven geoscience services that support safe groundwater development, protection of aquifers, subsurface characterization for infrastructure projects, and mitigation of geological risks such as soil instability, erosion, and subsidence. These activities directly impact sectors of national relevance, including municipal water supply, agriculture, construction, energy, and environmental protection.

The proposed endeavor aligns with U.S. national interests by strengthening water security, enhancing infrastructure resilience, and supporting environmental sustainability in the context of increasing climate variability and regulatory complexity. **By providing specialized technical oversight that reduces the likelihood of catastrophic infrastructure failure and groundwater contamination, Dr. Dessart's work promotes public safety, economic continuity, and longterm sustainable development.**

Accordingly, Dr. Dessart's proposed endeavor satisfies the first prong of the *Matter of Dhanasar* framework, as it is grounded in a field of substantial merit and carries clear implications for national importance extending beyond any single geographic region.

3.1.1 BUSINESS PLAN

A detailed description of the proposed endeavor and why it is of substantial merit:

EarthLog Consulting, under Dr. Dessart's leadership, will significantly enhance the environmental safety, water resource security, and geological infrastructure resilience of public and private sectors across the United States. **Its core objective is to deliver targeted solutions in four main areas: hydrogeological risk assessment and disaster prevention, sustainable water resource management, soil stability and erosion control for critical infrastructure, and environmental compliance auditing for sanitation and mining projects.**

The business plan (Exhibit C.I) explains the critical need for these services. This need is driven by the increasing frequency of extreme weather events, the depletion of groundwater reserves, and the urgent requirement for specialized geological expertise to protect U.S. infrastructure from natural hazards. The endeavor's solutions are designed to strengthen environmental resilience, improve disaster response readiness, and ensure the long-term sustainability of water supplies in high-risk regions.

Several structural factors in the U.S. context drive sustained demand for the services offered by EarthLog Consulting:

- **Rising Geological and Climate Risks** – U.S. coastal and inland regions face increasing threats from landslides, soil subsidence, and catastrophic flooding. Recent disasters have highlighted vulnerabilities in urban planning and infrastructure that lack advanced geological modeling. Organizations and government agencies require proactive strategies to mitigate these risks and protect human life and property.
- **Water Scarcity and Resource Management** – Many states face unprecedented challenges regarding water security and the contamination of aquifers. Dr. Dessart's expertise in water resources and environmental sanitation is vital for developing sustainable extraction models and protecting groundwater quality, aligning with federal interests in securing the nation's water supply.
- **Infrastructure Resilience and Soil Stability** – The broader policy environment, exemplified by federal initiatives such as the **Infrastructure Investment and Jobs Act**

(IIJA)"¹⁰, underscores a long-term national priority to modernize critical infrastructure. **EarthLog Consulting is strategically positioned to address the resulting market demand for specialized engineering geology and subsurface characterization services.** By providing technical oversight to ensure projects are built on stable ground, the firm helps prevent structural failures caused by erosion or unforeseen geological shifts, aligning its commercial objectives with national safety standards.

- **Environmental Compliance and Sanitation** – As regulatory mandates for environmental protection and sanitation become more stringent, industries such as mining, construction, and public utilities require senior-level expertise to ensure compliance. EarthLog Consulting will bridge the gap between complex environmental regulations and technical implementation, reducing the risk of ecological damage and legal penalties.
- **Disaster Recovery and Mitigation** – In the event of natural disasters, communities need robust mitigation plans to restore essential services and prevent secondary hazards. Dr. Dessart will design and implement geological monitoring frameworks tailored to vulnerable operational environments, ensuring business and service continuity.

For these reasons, EarthLog Consulting will provide high-impact geological and environmental solutions. Under Dr. Dessart's leadership, the company will leverage his Ph.D. in Water Resources and Environmental Sanitation and over 20 years of experience to enhance the operational capabilities of organizations exposed to environmental risks. These initiatives are specifically structured to fill a clear gap in high-level consulting services that combine deep academic research with extensive field experience in large-scale environmental projects.

EarthLog Consulting also holds substantial merit through its potential economic contributions. According to the business plan, company revenue is expected to grow from approximately \$486,500 in Year 1 to over \$1.57 million by Year 5. Over the same period, net profit is projected to increase from \$9,621.98 to \$249,911.87. In parallel, the firm plans to expand its workforce from four (4) professionals in its first year to thirteen (13) full-time employees by Year 5. These projections demonstrate real, quantifiable impact through high-skilled job creation in the STEM-related environmental sector.

Finally, as a Geologist and Environmental Scientist specializing in water resources, Dr. Dessart represents a STEM professional leading an innovative project within a recognized STEM area. His expertise is strongly aligned with fields listed on the DHS STEM Designated Degree Program List, reflecting the critical importance of his work in national environmental security. Specifically, his academic background and proposed endeavor correspond to the following CIP codes:

- **40.0601– Geology/Earth Science, General:** Encompasses the scientific study of the earth, its forces, and its resources, directly reflecting Dr. Dessart's core expertise and his role in disaster prevention and resource management.
- **40.0605 – Hydrology and Water Resources Science:** Covers the design and management of systems for the collection, storage, and distribution of water, directly corresponding to Dr. Dessart's Ph.D. and his focus on environmental sanitation.

These classifications highlight the STEM relevance and national importance of Dr. Dessart's field. The USCIS Policy Manual (Chapter 5) underscores the significance of contributions from individuals like Dr. Dessart:

¹⁰ <https://www.congress.gov/bill/117th-congress/house-bill/3684>

USCIS recognizes the importance of progress in STEM fields and the essential role of persons with advanced STEM degrees in fostering this progress, especially in focused critical and emerging technologies or other STEM areas important to U.S. competitiveness or national security.

In conclusion, EarthLog Consulting exemplifies an endeavor of substantial merit and national importance by offering critical geological and environmental solutions that address the evolving climate and infrastructure challenges facing the United States. Through its focus on water security, disaster mitigation, sustainable infrastructure, and firm grounding in STEM fields (CIP Codes 40.0601 and 40.0605), the company directly contributes to national safety and economic stability.

3.1.2 EVIDENCE OF ENDEAVOR'S MERIT

National or even global implications within a particular field:

Demonstrating the national importance of Dr. Dessart's proposed endeavor, EarthLog Consulting, involves showing its broader implications beyond its immediate business operations. **The company's mission and activities directly support U.S. efforts to strengthen water security, protect environmental quality, and improve resilience of communities and infrastructure to geologic and hydrologic hazards.** This is supported by documentary evidence, including technical analyses and market context, provided in the business plan (Exhibit C.I).

As detailed in previous sections and in the attached business plan (Exhibit C.I), EarthLog Consulting is designed to address a critical gap in specialized, science-based support for water resources management, hydrogeologic risk assessment, soil stability evaluation, and environmental compliance in projects that can affect public safety and essential services. Its services are designed to help prevent avoidable losses, reduce environmental degradation, and improve decision making for complex projects involving groundwater, surface water, erosion, slope stability, and sanitation.

Federal, state, and local stakeholders repeatedly emphasize the urgency of improving resilience to natural hazards, protecting water supplies, and preventing contamination of soil and water resources. Increasing variability in precipitation patterns, flood frequency, and slope instability raises the technical demand for hydrogeologic and geotechnical expertise that can be applied in planning, permitting, design, monitoring, and mitigation. EarthLog Consulting is structurally aligned with these priorities by providing applied geoscience solutions that support risk-informed planning and implementation.

Through technical assessments, field investigations, data interpretation, and practical mitigation planning, EarthLog Consulting also contributes to capacity building in environmental decision making. Its work supports the adoption of consistent methods for hazard identification, monitoring, and compliance documentation across projects that influence communities, infrastructure, and ecosystems. These activities help reduce uncertainty, improve accountability, and raise the baseline of technical quality in environmental and infrastructure related decisions.

Thus, the impact of EarthLog Consulting extends beyond internal business metrics. It represents an initiative with direct implications for public safety, continuity of essential services, environmental protection, and long term economic stability. By addressing systemic vulnerabilities associated with unstable soils, erosion, groundwater contamination risks, and inadequate hazard mitigation, the company contributes to safeguarding assets that are foundational to public welfare and sustainable development.

The National Importance of Dr. Dessart's endeavor is underscored by its direct alignment with the strategic missions of key U.S. Federal Agencies. His focus on water resource

management and soil stability directly supports the **Environmental Protection Agency (EPA)**¹¹ **mission to ensure clean and safe water for all Americans**. Furthermore, his expertise in geological hazard mitigation is critical to the **Federal Emergency Management Agency (FEMA)**¹² **in its efforts to build resilient communities and reduce disaster risks**. By providing high-level consultancy that mirrors the technical standards of the **U.S. Geological Survey (USGS)**¹³ and the **Bureau of Reclamation**¹⁴, Dr. Dessart's endeavor serves a clear and urgent national interest in infrastructure safety and environmental sustainability.

Led by Dr. Dessart, EarthLog Consulting is purposefully structured to support projects and institutions that depend on reliable environmental conditions and safe infrastructure, including water supply systems, sanitation and wastewater related operations, transportation corridors, and developments in areas subject to flooding, erosion, and mass movement. Through site specific investigations, risk mitigation strategies, monitoring frameworks, and compliance oriented technical documentation, the company is positioned to contribute to broader U.S. efforts to reduce disaster impacts and protect water resources.

Here are several key points detailing why Dr. Dessart's endeavor is of national importance:

- **Protecting water resources and public health:** EarthLog Consulting focuses on groundwater and surface water protection, including assessment of contamination risks and support for sanitation related projects. Water quality and reliability are foundational to public health, economic productivity, and community resilience.

National importance: Protecting water resources helps prevent public health crises, reduces long term remediation costs, and supports sustainable growth in communities that rely on secure water supplies.

- **Reducing risk from geologic and hydrologic hazards:** The endeavor addresses hazards such as erosion, slope instability, flooding impacts, and soil related risks that can compromise homes, roads, utilities, and public facilities. Preventive technical work reduces the likelihood and severity of disruptive events.

National importance: Proactive hazard mitigation reduces losses, supports continuity of essential services, and helps protect human life and property.

- **Supporting resilience of critical infrastructure and land use decisions:** Major infrastructure and development projects require accurate geologic and hydrogeologic characterization to avoid failures, delays, and cost overruns. EarthLog Consulting supports planning and implementation with applied geoscience, monitoring, and mitigation design recommendations.

National importance: Better ground and water related decisions strengthen infrastructure performance, reduce lifecycle costs, and improve the reliability of services that communities and businesses depend on.

¹¹ <https://www.epa.gov/>

¹² <https://www.fema.gov/>

¹³ <https://www.usgs.gov/>

¹⁴ <https://www.usbr.gov/>

- **Environmental compliance and responsible project execution:** Projects in construction, sanitation, and natural resource contexts often require permitting support and compliance documentation. EarthLog Consulting helps align project practices with environmental requirements, reducing ecological harm and regulatory risk.

National importance: Strong compliance practices help protect ecosystems, reduce disputes and delays, and support lawful, responsible development.

- **Alignment with STEM priorities and advanced degree expertise:** Dr. Dessart's work falls within recognized STEM fields, particularly Geology and Earth Sciences and Water Resources related disciplines. His Ph.D. level expertise in Water Resources and Environmental Sanitation supports an applied, research informed approach to risk reduction and sustainable environmental management.

National importance: STEM grounded environmental and water security work supports U.S. competitiveness by protecting foundational resources and enabling resilient infrastructure and community development.

The United States is confronting increasing pressures on water security, environmental quality, and infrastructure resilience, particularly in high growth regions exposed to groundwater stress, sinkhole susceptibility, flooding, and coastal and karst related hazards. Federal, state, and local initiatives increasingly emphasize risk informed investment, climate adaptation, and resilience planning for essential infrastructure and natural resource protection. Aligned with these priorities, **Dr. Dessart's work through EarthLog Consulting focuses on helping public and private stakeholders implement advanced hydrogeologic and geotechnical solutions that strengthen environmental safety, protect water resources, and improve the reliability and durability of infrastructure and land use decisions.**

The business plan provides market evidence showing that EarthLog Consulting is positioned to meet sustained demand in a rapidly expanding regional hub. As documented in Exhibit C.I, the comparative market analysis identifies the Orlando metropolitan area—with a population of 2,940,513 and an annual growth rate of 2.70% — as a leading location for environmental consulting services. While EarthLog Consulting will initially focus its operations in this high-growth region, the endeavor's impact carries clear national importance. The region's rapid development serves as a critical testing ground for addressing structural challenges faced by the entire United States: the intersection of urban expansion, increasing climate variability, and the urgent need for aquifer protection. By delivering advanced hydrogeology, applied geophysics, and geotechnical risk mitigation in this complex environment, Dr. Dessart's work provides a scalable model for infrastructure resilience that directly informs national strategies for sustainable land use and water security. Therefore, the endeavor's implications extend far beyond a local client list, as it tackles systemic vulnerabilities that are a top priority for federal agencies such as FEMA and the EPA across all U.S. jurisdictions.

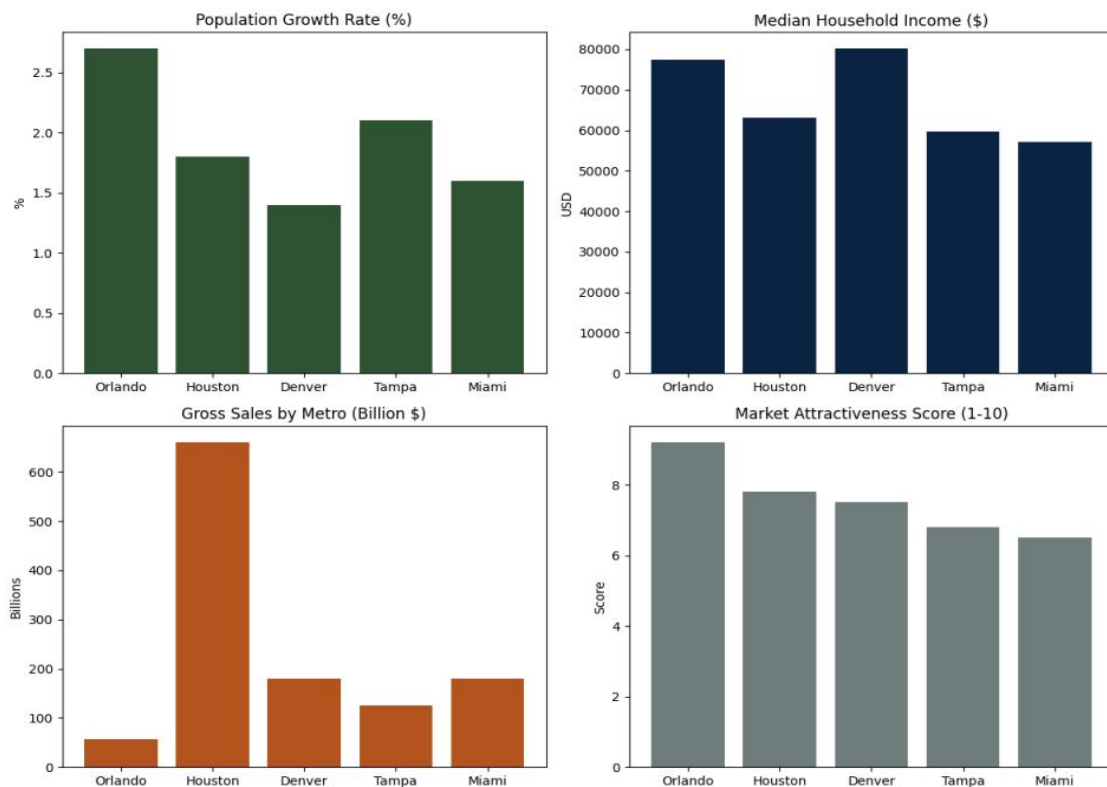
Comparative Market Attractiveness: Orlando vs. Other U.S. Metros

Metropolitan Area	Population 2024	Growth Rate %	Median Household Income	Gross Sales (\$B)	Market Attractiveness Score	Environmental Consulting Demand
Orlando MSA	2,940,513	2.70%	\$77,378	\$57.2B	9.2	High – Development boom, water management needs
Houston MSA	7,600,000	1.80%	\$63,000	\$660B	7.8	Very High – Energy sector
Denver MSA	2,963,821	1.40%	\$80,184	\$180.5B	7.5	High – Natural resources, federal projects
Tampa MSA	3,342,963	2.10%	\$59,734	\$125.8B	6.8	Medium-High – Coastal development
Miami MSA	6,138,333	1.60%	\$57,091	\$180.2B	6.5	Medium – Urban development pressure

EarthLog Consulting is strategically positioned to support this model of decentralized resilience by enabling municipalities, developers, engineering firms, and regulated stakeholders to make defensible, science-based decisions about subsurface conditions, aquifer protection, contamination risks, and geohazard exposure. **Through integrated hydrogeological studies, applied geophysics, remote sensing, and GIS based analytics, the company provides decision grade assessments that reduce permitting delays, improve compliance outcomes, and mitigate risks that can affect public safety and critical infrastructure performance.**

The market evidence in Exhibit C.I supports the national importance of the endeavor because the underlying drivers are structural and long term. Rapid urban expansion into geologically complex settings, increased regulatory rigor for environmental review, and growing constraints on groundwater resources create sustained demand for advanced geoscience consulting. As demonstrated in Exhibit C.I, EarthLog Consulting’s focus on Orlando provides an immediate entry point into a high-demand environment while establishing a scalable platform to expand services across the Southeast, where similar hydrogeologic and geotechnical challenges persist.

Comparative Market Analysis for Environmental Consulting



In conclusion, EarthLog Consulting, led by Dr. Dessart, addresses nationally relevant needs tied to water security, environmental protection, and resilient infrastructure. The market analysis in Exhibit C.I, including the Orlando metro comparative table and the multi chart analysis, provides quantitative support that the endeavor operates in a high growth environment with measurable demand for advanced environmental and geoscience services. These factors reinforce that the endeavor has substantial merit and national importance under the first prong.

3.1.3 ENDEAVOR'S IMPACT

The proposed endeavor has significant potential to employ U.S. workers:

This is one of the most important factors when assessing national importance because there is no room for interpretation. The precedent decision, *Matter of Dhanasar*, expressly includes the significant potential to employ U.S. workers or other substantial positive economic effects, particularly in an economically depressed area, as determinative factors of national importance.

Under the guidance of its founder and Chief Executive Officer, Dr. Dessart, EarthLog Consulting is positioned to make a substantial contribution to U.S. employment through both direct and indirect job creation. As set forth in the company's business plan, by the end of its fifth year of operations **EarthLog Consulting is projected to grow to a team of 13 (thirteen)** highly skilled professionals. This expansion will be driven by Dr. Dessart's strategic leadership, which will guide the company's market positioning, service portfolio, and operational growth in the environmental and geological sectors.

Beyond direct hiring, **the proposed endeavor is projected to generate a total economic impact of approximately \$5.8 million over its first five years of operation.** This figure represents the cumulative effect of direct payroll, operational expenditures, tax contributions, and the broader stimulation of the U.S. environmental services market.

EarthLog Consulting is expected to engage U.S. based professionals in roles such as hydrogeologists, environmental engineers, GIS specialists, soil stability technicians, field geologists, and project managers. These positions involve advanced technical expertise and operate within highly regulated environments related to environmental protection and public safety.

In addition to direct employment, Dr. Dessart's endeavor includes a strong workforce development component. EarthLog Consulting plans to implement internal training and upskilling programs to prepare U.S. workers in areas such as advanced hydrogeological software, environmental compliance, and geological hazard assessment. These initiatives will qualify workers for roles within EarthLog Consulting and will also contribute to strengthening the broader U.S. environmental and engineering talent pool, in line with national objectives to build domestic capacity in critical STEM fields.

EarthLog Consulting also **intends to collaborate**, where feasible, **with educational institutions, research centers, and professional organizations to offer internships, mentorship opportunities, and continuing education workshops.** Through these partnerships, the company will create additional touchpoints for workforce engagement and skill development, amplifying its impact beyond its immediate staff.

When evaluating the broader economic impact of job creation, it is essential to consider not just the direct positions generated by an enterprise but the indirect and induced jobs supported across related sectors. A standard method for quantifying this extended impact is the use of job multipliers, such as those developed by the Economic Policy Institute (EPI)¹⁵. For the **architectural, engineering, and related services sector**, where EarthLog Consulting is categorized, the Economic Policy Institute (EPI)¹⁶ reports a significant job multiplier of 2.06. Applying this established economic principle, the creation of **13 direct, high-skilled positions by year five** is expected to **support approximately 14 additional indirect and induced jobs, totaling 27 positions** supported by the endeavor across the U.S. economy. These indirect effects include roles in adjacent sectors such as laboratory testing services, drilling and equipment supply, geophysical instrumentation, logistics, professional services, technical training, and local service industries. This quantifiable economic ripple effect further satisfies the evaluative criteria established in *Matter of Dhanasar* regarding the potential to generate substantial positive economic effects.

Applying established economic principles regarding indirect and induced employment effects, the creation of 13 direct, high-skilled positions by year five under Dr. Dessart's leadership is expected to support additional employment across the U.S. economy. **These indirect effects include roles in adjacent sectors such as laboratory testing services, drilling and equipment supply, geophysical instrumentation, logistics, professional services, technical training, and local service industries.**

This broader employment impact further satisfies one of the core evaluative criteria established in *Matter of Dhanasar*, namely the significant potential to employ U.S. workers and to generate substantial positive economic effects, even where the precise number of indirect positions cannot be fixed in advance. Please note that *Dhanasar* expressly states that one can prove national importance through the significant potential to employ U.S. workers. That is not the same as potential to employ a significant number of U.S. workers, as the significance is in the potential or probability, not in the absolute number of jobs the endeavor may create. This is a matter of semantics, but a critical one under the precedent.

In addition to its direct job creation and multiplier effects, the endeavor is strategically located in Florida, a region with critical needs for water resource management and coastal resilience. According to regional economic reports, the environmental services sector is a vital component of the state's economy, supporting thousands of jobs and protecting billions of dollars in infrastructure. By establishing its headquarters in this region, EarthLog Consulting will embed itself in a high impact environmental cluster that actively fosters sustainable development and disaster prevention.

This location choice further enhances the endeavor's national importance. EarthLog Consulting will benefit from and contribute to the local environmental ecosystem by creating high skilled geological jobs, collaborating with local initiatives focused on water safety, and supporting municipalities that need to comply with federal environmental mandates.

In conclusion, Dr. Dessart's proposed endeavor, through EarthLog Consulting, clearly aligns with **national economic goals by creating substantial employment opportunities, stimulating broader economic growth through indirect job creation, and leveraging a strategically**

¹⁵ <https://www.epi.org/about/>

¹⁶ <https://www.epi.org/about/>

important environmental hub to maximize its impact. By contributing to job creation, tax revenue, and economic prosperity, while addressing acute national needs in water resource protection and geological safety, EarthLog Consulting is poised to make a lasting and positive impact on both the local community and the broader U.S. economy. These factors collectively underscore the significant potential of the proposed endeavor to employ U.S. workers and to generate substantial positive economic effects, thereby strongly supporting the case for a National Interest Waiver.

The endeavor impacts a matter that a government entity has described as having national importance, or its a subject of national importance:

Dr. Dessart's proposed effort through EarthLog Consulting is directly aligned with U.S. government priorities in water resource management, environmental protection, and infrastructure resilience, all of which have been repeatedly described as matters of national security and national economic strength.

In recent years, the **U.S. Government has emphasized that the protection of groundwater, the management of drought and flood risks, and the stability of physical infrastructure pose significant challenges to the United States. Federal policy documents, including the Clean Water Act¹⁷ and various Executive Orders on climate resilience, underscore the need to strengthen the security of water supplies, protect sensitive ecosystems, and enhance the resilience of both public and private infrastructure.** These initiatives explicitly recognize that environmental stability is essential for national health and mainly for the stability of the U.S. economy and the continuity of essential services.

EarthLog Consulting's mission is to provide advanced geological consulting, groundwater management, soil stability analysis, and environmental compliance support, particularly to organizations that operate or support critical infrastructure. This mission directly serves these priorities. **By helping U.S. entities prevent, detect, and respond to geological hazards, and by assisting them in meeting federal and industry environmental standards, the company contributes to the implementation of national policy objectives identified by the U.S. Government as critical to national safety.**

In addition, current federal strategies consistently highlight the need for a stronger STEM workforce and greater public private collaboration in environmental sciences. EarthLog Consulting's focus on training, upskilling, and collaborating with private companies, educational institutions, and other stakeholders is fully aligned with this emphasis on partnership and capacity building.

In conclusion, Dr. Dessart's initiative through EarthLog Consulting addresses issues that U.S. government entities have clearly identified as matters of national importance: the protection of water resources, the safety of physical infrastructure, and the development of a robust environmental workforce. The endeavor's alignment with these articulated federal priorities, together with its concrete plans for implementation, further strengthens the case that Dr. Dessart's work satisfies the national importance prong under *Matter of Dhanasar*.

3.2 Second PRONG:

¹⁷ <https://www.epa.gov/laws-regulations/summary-clean-water-act>

The Self-Petitioner is Well-Positioned to Advance the Proposed Endeavor in the United States

The second prong under *Matter of Dhanasar* requires demonstrating that the Petitioner is well positioned to advance the proposed endeavor. This does not demand proof of guaranteed success but rather credible evidence of qualifications, experience, and progress made toward implementation.

Dr. Dessart's advanced academic background, including a Doctorate in Water Resources and Environmental Sanitation and a master's degree in Geology, combined with more than two decades of progressively responsible experience in geosciences, hydrogeology, and environmental consulting, clearly establish that he is exceptionally well positioned to lead and expand EarthLog Consulting in the United States. His extensive record of technical leadership, scientific contributions, and practical expertise in managing complex environmental projects provides a solid foundation for the successful execution of his proposed endeavor in the American market.

3.2.1 EDUCATION, SKILLS, KNOWLEDGE, AND RECORD OF SUCCESS:

Dr. Dessart is exceptionally well qualified to advance his proposed endeavor in the United States, based on his strong academic credentials and long-standing professional engagement with geosciences, hydrogeology, water resource management, and environmental risk mitigation. He holds a **Doctorate (Ph.D.) in Water Resources and Environmental Sanitation from the Federal University of Rio Grande do Sul (UFRGS)**,¹⁸ **one of the most prestigious research institutions in Latin America, and a master's degree in Geology from the University of Vale do Rio dos Sinos (UNISINOS)**¹⁹. His doctoral thesis, **focused on advanced hydrogeological modeling and water management**, represents the highest level of academic achievement and technical specialization in his field, providing him with the scientific foundation necessary to lead complex environmental projects (Exhibit B).

Beyond his formal degrees, **Dr. Dessart has accumulated hundreds of hours of specialized training in areas directly related to his proposed endeavor**, including geological hazard assessment, environmental licensing, geoprocessing, and sustainable resource management. He has consistently sought to integrate international best practices into his work, as evidenced by his diverse portfolio of certifications and specialized courses. Among these, he has completed intensive programs such as:

- **Specialization in Environmental Management (UFRGS)** – strengthening his expertise in regulatory compliance and sustainable development frameworks (Exhibit C.II).
- **Geological Hazards and Risk Assessment (American Museum of Natural History)** – providing a global perspective on disaster prevention and soil stability (Exhibit C.II).
- **Advanced Geoprocessing and GIS Analysis** – deepening his knowledge in spatial data modeling for environmental monitoring (Exhibit C.II).
- **Workshop on Mineral Exploration and Hydrogeology** – focused on the sustainable extraction and protection of groundwater resources (Exhibit C.II).

¹⁸ <https://www.ufrgs.br/site/a-ufrgs/apresentacao/>

¹⁹ <https://www.unisinos.br/institucional>

- **Environmental Licensing and Public Policy** – providing specialized knowledge in navigating complex regulatory environments for infrastructure projects (Exhibit C.II).
- **Geodiversity and Heritage Management** – addressing the protection of geological sites and the integration of environmental conservation with urban planning (Exhibit C.II).

These academic and training credentials are complemented by a record of sustained, high impact professional achievement. **Dr. Dessart has over 22 years of experience in geosciences, specializing in hydrogeology, environmental consulting, and large scale disaster prevention projects for both public and private sectors.**

Dr. Dessart's positioning to advance the proposed endeavor is further solidified by high-level professional recognition that transcends his academic credentials. His status as an expert with an Advanced Degree is validated by the '**Brazil 2025 Excellence and Quality Award**', where he was named '**Professional of the Year**' in the category of **Geology and Environmental Services** (Exhibit C).

This award, accompanied by the prestigious title of 'Commander' (Comendador) granted by the Brazilian Leadership Association (Braslider), serves as objective evidence of his significant contributions to the field. Such recognition is only bestowed upon professionals who have demonstrated a superior level of expertise and leadership, further proving that Dr. Dessart is eminently well-positioned to lead EarthLog Consulting and deliver the high-impact geological and environmental solutions described in this petition (Exhibit C).



Dr. Dessart's readiness to advance his endeavor is substantiated by a **22 year career marked** by increasing **technical responsibility and leadership** in complex geoscience projects across both public and private sectors. Through his **leadership at DGEO and EarthLog Consulting**, he has mastered the execution of high level hydrogeological assessments and environmental audits, specifically focusing on deep well siting and the protection of groundwater resources. His extensive experience with firms such as **FTGeo Consulting and Geomap Geologia** provided him with deep expertise in conducting geophysical surveys using electrical resistivity to identify critical fractures and managing complex environmental licensing for mining and large scale urban developments. Furthermore, his work at **Neocorp Desenvolvimento de Projetos** involved the application of advanced methods like Ground Penetrating Radar and bathymetry for soil contamination investigations and hydropower siting, proving his ability to deliver the technical data necessary for safe infrastructure planning. This practical industry experience is complemented by his tenure as a **Visiting Professor at the Federal University of Pampa**, where he bridged the gap between academic research and field application, ensuring he possesses the comprehensive technical and managerial foundation required to successfully lead EarthLog Consulting in the United States.

As aforementioned, Dr. Dessart's record of success is not merely academic; it is deeply rooted in the practical demands of the geological and environmental industry. His ability to lead complex projects and deliver high-value technical solutions is objectively validated by his Service Contracts and Project Management Records (Exhibit B). **For instance, his work with Geomap Geologia LTDA demonstrates his capacity to manage large-scale environmental licensing and geological surveys, skills that are directly transferable to his proposed endeavor in the United States.**

Furthermore, Dr. Dessart's professional standing and the sustained nature of his success are corroborated by his Financial Records and Income Tax Returns (Exhibit B). **These documents reflect a stable and high-level career as a senior geologist and independent consultant over the past two decades.** This financial and contractual evidence proves that Dr. Dessart possesses the business acumen and market recognition necessary to successfully establish and expand EarthLog Consulting, ensuring that his Ph.D. expertise translates into tangible benefits for the U.S. environmental and infrastructure sectors

In addition to his technical and managerial record, Dr. Dessart has a proven history of scientific contribution and scholarly authorship. He is the author of "Acurácia das Coordenadas (Accuracy of Coordinates)" and a co-author of "Geologia dos Pampas em Fotografia: A Geodiversidade dos Pampas Gaúchos (Geology of the Pampas in Photography: The Geodiversity of the Gaúcho Pampas)" (Exhibit B), a comprehensive academic work examining the geological heritage and biodiversity of the Gaúcho Pampas region. This publication demonstrates his expertise in geodiversity assessment and geological heritage management, skills directly applicable to environmental risk mitigation and infrastructure planning in the United States. **Additionally, he has published numerous peer-reviewed articles in prestigious journals such as "Águas Subterrâneas (Groundwater)" and the "Boletim Goiano de Geografia (Goiano Bulletin of Geography)".** His research on the structural compartmentalization of aquifer systems and the use of aeromagnetic data for groundwater prospecting has received international recognition, including presentations at the **Uruguayan Congress of Geology**, the premier scientific forum for geosciences in Uruguay, organized by the Uruguayan Geological Society, bringing together international experts to validate high-impact research in hydrology, geophysics, and natural resources across South America (Exhibit B).

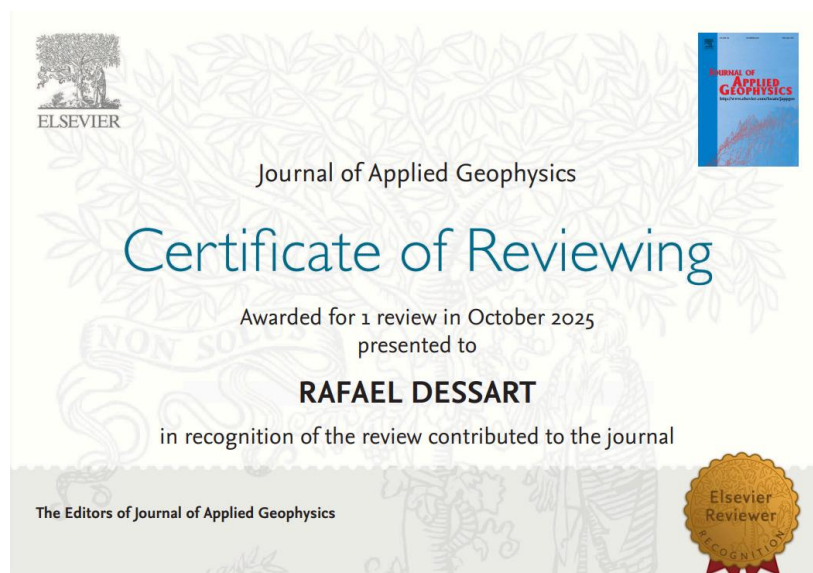
GEOLOGY OF THE PAMPAS IN PHOTOGRAPHY



THE GEODIVERSITY OF THE GAÚCHO PAMPAS

GOMES, DESSART,
SPERANDIO & BORGES

Dr. Dessart's standing as an authority in his field is further evidenced by his invitation to serve as a Peer Reviewer for the Journal of Applied Geophysics,²⁰ a prestigious international publication by Elsevier (Exhibit B). The Journal of Applied Geophysics is a leading peer-reviewed venue for research on the application of geophysics to engineering, hydrology, and environmental problems. Serving as a reviewer for such a high-impact journal is a role reserved exclusively for experts with a proven track record of significant contributions and deep technical knowledge. By evaluating the scientific merit of research submitted by other global experts, Dr. Dessart demonstrates that he is recognized by the international scientific community as a top-tier specialist in applied geosciences, further proving he is exceptionally well-positioned to lead advanced technical projects in the United States



Dr. Dessart's professional standing is further validated by his licensure and active participation in the geological community. He is a licensed Geologist with the Regional

²⁰ <https://www.sciencedirect.com/journal/journal-of-applied-geophysics/about/aims-and-scope>

Council of Engineering and Agronomy (CREA)²¹, holding License No. 126851-D (Exhibit B). Additionally, his commitment to the field is demonstrated by his membership in the Brazilian Geological Society (SBG) (Exhibit B), an organization dedicated to the development of geosciences. These credentials, combined with his Ph.D. and two decades of experience, demonstrate that he is eminently well-positioned to advance his proposed endeavor in the United States.



Under the Brazilian regulatory framework, CREA registration grants legal authority to assume technical responsibility for geological and engineering projects, including signing technical reports, overseeing regulated works, and bearing civil and criminal liability for professional acts. This level of statutory responsibility reflects a senior licensed professional status within a regulated engineering environment and evidences Dr. Dessart's advanced standing and readiness to operate at a high professional level in the United States.

It is clear that Dr. Dessart has been involved, academically and professionally, with the fields of geology, water resources, environmental sanitation, and applied environmental technologies for 22 years. The progressiveness of his professional experience is clear and consistent, demonstrating a continuous assumption of greater technical responsibility, leadership in complex environmental assessments, and oversight of multidisciplinary projects involving water management, soil stability, and environmental risk mitigation. This sustained trajectory shows that he is well positioned to advance his proposed endeavor in the United States.

Collectively, these elements form a strong record of success that closely mirrors the core services that EarthLog Consulting will provide in the United States: hydrogeological modeling, disaster risk assessment, environmental compliance, and sustainable water resource management. Dr. Dessart's professional excellence has been repeatedly recognized through his selection for trust sensitive roles and his active engagement with leading professional societies. His expertise aligns directly with national priorities regarding water security and disaster prevention, and his proposed contributions stand to generate meaningful, sustained benefits for U.S. public safety and environmental health.

3.2.2 INDEPENDENT EXPERT TESTIMONIALS SUPPORTING THE PETITIONER'S QUALIFICATIONS AND IMPACT:

In addition to his extensive credentials and career accomplishments, Dr. Dessart's qualifications and readiness to advance the proposed endeavor are strongly supported by detailed letters from independent experts and senior executives in academia, industry, and government. These recommenders are highly accomplished in their own right and have

²¹ <https://www.crea-rs.org.br/site/index.php?p=instituicao>

firsthand knowledge of Dr. Dessart's work in geology, water resource management, environmental sanitation, and geotechnics.

As encouraged by the USCIS Policy Manual, such letters provide objective, thirdparty confirmation of the Petitioner's exceptional capabilities, professional reputation, and the realworld impact of his work. Collectively, they affirm that Dr. Dessart is well-positioned to advance his proposed endeavor and to deliver substantial benefits aligned with U.S. national priorities in environmental protection, infrastructure resilience, and public safety.

A first letter is provided by **Dr. Henrique Garcia Pereira**, a Postdoctoral Researcher in Geophysics at the Federal University of Rio Grande do Norte (UFRN), who worked with Dr. Dessart during graduate-level coursework and applied geophysics field activities. He notes:

"Mr. Dessart excels at integrating geophysical, structural, and hydrogeological data to support groundwater management in complex settings. [...] By combining aeromagnetometry, structural analysis (lineaments), and hydrogeologic interpretation, he delineated favorable drilling targets for groundwater prospecting."

A second expert letter is provided by **Dr. Pedro Antonio Roehe Reginato**, Professor of Hydrogeology at the Federal University of Rio Grande do Sul (UFRGS), who supervised Dr. Dessart's doctoral research and observed his work closely. As stated in his letter:

"He devoted himself to studying the relationship between geophysical data integration and successful well location in fractured aquifers. [...] His adept use of ArcGIS and geophysical analysis programs demonstrated both solid technical proficiency and strong problem-solving skills, allowing him to transform raw datasets into decision-ready interpretations."

A third expert letter is provided by **Dr. Cristiano Danieli**, Co-Owner and Senior Geologist at KONDA Geologia Ambiental LTDA, who has maintained long-term professional interaction with Dr. Dessart. He states:

"From a business and operational standpoint, what stands out in Mr. Dessart's work is his reliable integration of geological reasoning into concrete deliverables. He is disciplined in gathering the data that matters, he structures the interpretation so findings remain auditable, and he communicates implications and limitations with clarity."

A fourth expert letter is provided by **Dr. Jacson Gosman Gomes de Lima**, Professor at the Instituto Federal de Santa Catarina (IFSC), who collaborated with Dr. Dessart in academic and field activities. According to his letter:

"From my direct interactions with Mr. Dessart, three qualities stand out. First, he learns and integrates new geoscientific tools effectively into workflows, using them to frame geological questions and to organize the steps of data collection and interpretation. [...] Third, he maintains professional conduct under operational constraints, balancing safety, time, and quality standards in the field."

A fifth expert letter is provided by **Dr. Maximilian Fries**, Professor and Researcher at the Federal University of Pampa (UNIPAMPA), who collaborated with Dr. Dessart in teaching and research activities. As stated in his letter:

“One of the most remarkable aspects of his contribution was the way he consistently translated theoretical knowledge into practical applications. [...] In our shared research activities, his participation strengthened the technical quality of the projects and fostered a spirit of cooperation that benefited colleagues and students alike.”

A sixth expert letter is provided by **Dr. José Waldomiro Jiménez Rojas**, Director and Professor at the Federal University of Pampa (UNIPAMPA), who describes his direct professional collaboration with Dr. Dessart from an academic and pedagogical perspective, highlighting his ability to structure complex scientific knowledge. As stated in his letter:

“In my direct observation, Mr. Dessart consistently integrates geology, hydrogeology, geophysics, and geoprocessing/GIS into clear learning experiences and applicable solutions. [...] From an academic management perspective, what I observe is a rare alignment of rigor and teachability. Mr. Dessart explains advanced subsurface topics with clarity, structures investigations so that data collection and interpretation are purposeful, and operates within policies and regulatory expectations.”

Together, these letters from distinguished professors, global industry executives, and senior technical leaders offer consistent, detailed, and mutually reinforcing evidence that Dr. Dessart has operated at the highest levels of his profession. They show that he has already:

- **Designed and implemented systems that support national-scale environmental and water infrastructure;**
- **Led complex risk mitigation and geotechnics projects in critical public-sector and industrial environments;**
- **Delivered innovative geological and hydrogeological solutions with direct relevance to U.S. environmental and safety priorities.**

These independent expert testimonials are therefore not mere character references; they are substantive, experience-based accounts of Dr. Dessart’s competencies, impact, and alignment with U.S. national interests. They confirm that he is “well positioned to advance the proposed endeavor,” and his work directly supports core national priorities in water security, infrastructure protection, and environmental resilience.

Given the critical nature of the proposed endeavor and the increasing environmental, hydrological, and geotechnical risks affecting infrastructure and public safety, we respectfully urge the Service to consider these expert statements (Exhibit C.II) as compelling evidence of both Dr. Dessart’s exceptional positioning and the strategic significance of his proposed U.S.-based initiatives through EarthLog Consulting.

3.2.3 PLAN FOR FUTURE ACTIVITIES:

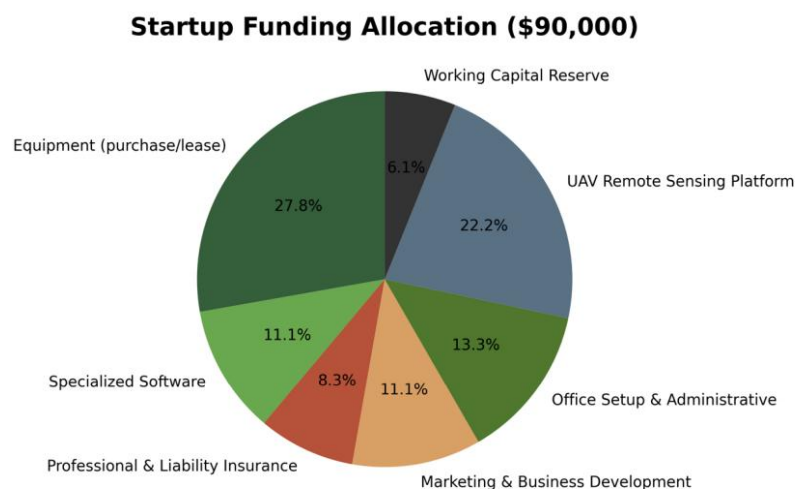
As **CEO and Principal Senior Geophysicist**, Dr. Dessart will personally **lead the most technically complex components of EarthLog Consulting’s operations**, integrating strategic business management with high-level scientific oversight. His role encompasses the entire lifecycle of the endeavor, from spearheading business development and securing strategic partnerships with government agencies and infrastructure operators to providing the final technical validation for all hydrogeological and geophysical deliverables. Dr. Dessart will be responsible for **managing the firm’s financial health and operational efficiency** while supervising a multidisciplinary team of specialists, including geophysicists, environmental engineers, and GIS

experts. By directing the company's geoscientific strategy, he will ensure that all subsurface modeling and risk assessments meet rigorous U.S. regulatory standards, such as those mandated by the EPA and state water management districts. Furthermore, he will drive innovation within the firm by integrating cutting-edge technologies in remote sensing and proprietary data-processing workflows, ensuring that EarthLog Consulting remains at the forefront of addressing national challenges in water security, climate adaptation, and infrastructure resilience.

Dr. Dessart's leadership, **EarthLog Consulting** will **therefore** manage and mentor a multidisciplinary team of geologists, hydrogeologists, environmental engineers, and GIS specialists, cultivating a collaborative and high-performance work environment that is essential to the successful execution of the company's mission. Additionally, Dr. Dessart will play a critical role in customer relations, maintaining strong relationships with stakeholders and industry partners to drive business growth and ensure high levels of client satisfaction.

Dr. Dessart will systematically monitor industry trends, regulatory changes, and technological developments to ensure that EarthLog Consulting remains at the forefront of environmental consulting and sustainable development, thereby maintaining its competitive edge and maximizing its contribution to U.S. national interests.

In addition to his technical and managerial qualifications, Dr. Dessart has secured the financial resources necessary to launch and sustain the proposed enterprise. As outlined in Item 2.5 of the business plan (Exhibit C.I), EarthLog Consulting is projected to require an initial investment of \$90,000 USD, which Dr. Dessart has committed to funding personally:



This investment plan reflects a strategic allocation of resources tailored to the unique demands of the geological and environmental consulting sector. Of the total, \$49,000 will cover startup expenses, including legal fees, insurance, marketing, office rent and deposit, and essential technological infrastructure such as computers, specialized geophysical hardware and tools (including GPR, electromagnetic induction equipment, and seismic refraction systems), GIS software licenses, and remote sensing platforms. Additional expenses for office furniture and supplies have also been accounted for, ensuring a professional and efficient work environment from inception.

Furthermore, \$31,000 will be reserved as startup working capital to maintain operational liquidity during the critical initial phase, enabling the company to manage its ongoing obligations with financial stability. **This well-structured financial strategy demonstrates Dr. Dessart's preparedness and his capacity to independently execute the proposed endeavor without**

relying on external funding sources. It also underscores his commitment to ensuring the long-term viability and success of EarthLog Consulting, including its planned establishment in the United States, a strategic location for serving federal agencies, state environmental departments, and private-sector clients involved in water resource management and infrastructure development.

Taken together, the evidence demonstrates that Dr. Dessart is well-positioned to advance the proposed endeavor in the United States. His advanced academic training, specialized technical expertise, extensive experience in environmental consulting, professional recognition, and documented leadership of complex projects, supported by testimonial letters and a realistic, well-funded implementation plan, establish his capacity to make a meaningful and sustained contribution to U.S. water security, environmental protection, and infrastructure resilience.

3.3 Third PRONG:

On Balance, It Would be Beneficial to the United States to Waive the Requirement of a Job Offer and Labor Certification

Congress established the National Interest Waiver to address the limitations of the labor certification process. When a foreign national brings significant and unique benefits to a particular field beyond what is expected from a typical job, they should not be denied permanent residence solely because another individual could perform the job adequately.

Dr. Dessart exemplifies this intent. As a seasoned Geologist and Environmental Consultant with over two decades of experience in safeguarding water resources and critical infrastructure, his proposed endeavor transcends the scope of a conventional job placement. **His work delivers strategic benefits to sectors vital to the United States, such as public safety, environmental protection, and disaster prevention.** Denying him permanent residence solely because another professional might nominally qualify for a specific role would undercut the broader public value his expertise uniquely advances through EarthLog Consulting.

Given the critical soil challenges identified by the EPA²², it would be impractical and contrary to the national interest to require a specific job offer for Dr. Dessart. His ability to serve multiple stakeholders, from private infrastructure developers to municipal water districts, provides a benefit to the United States that far outweighs the protections afforded by the labor certification process.

According to the third prong in the Dhanasar framework, adjudicators must conduct a balancing test by considering the national interest of requiring job offers and labor certifications against other factors that the foreign national brings to the table. This balancing act involves analyzing various factors, including:

- Whether it would be impractical for the foreign national to secure a job offer or for the petitioner to obtain a labor certification, given the nature of the foreign national's qualifications or proposed endeavor.
- Whether the United States would still benefit from the foreign national's contributions even if qualified U.S. workers are available.
- Whether the national interest in the foreign national's contributions is urgent enough to justify bypassing the labor certification process.

²² <https://www.epa.gov/>

The *Dhanasar* decision elucidates that while these factors are not stringent prerequisites, they serve as valuable considerations. When collectively assessed, they offer insight into the potential benefits of waiving the job offer and labor certification requirements for the United States.

The evidence furnished within this petition compellingly illustrates the imperative national interest in bypassing the arduous procedures associated with the job offer and labor certification process. **Dr. Dessart's endeavor is not about filling a vacancy; it is about providing a high-level service that protects the environment and public safety on a national scale.** Hence, a favorable decision is merited.

3.3.1 IMPRACTICABILITY OF A LABOR CERTIFICATION:

Given the Petitioner's intended role as the CEO and Principal Geoscientist of EarthLog Consulting, engaging in the labor certification process proves impractical. The labor certification process is designed primarily to protect U.S. workers from displacement by foreign nationals filling existing job openings. However, Dr. Dessart's entrepreneurial initiative does not displace any U.S. worker; rather, it directly creates new employment opportunities and contributes to the U.S. economy through job creation, tax revenue, and the delivery of critical environmental consulting, hydrogeological modeling, and infrastructure resilience services to government and private sectors.

The traditional labor certification framework fails to accommodate the unique structure and objectives of Dr. Dessart's proposed endeavor. The following factors support this conclusion:

- **Nature of Entrepreneurial Endeavor:** As a self-employed entrepreneur, Dr. Dessart's role is inherently distinct from traditional employment scenarios. He is not seeking to fill an existing position that could be occupied by a U.S. worker; instead, he is establishing a new enterprise that will generate positions for U.S. workers in geophysics, hydrogeology, environmental engineering, and GIS analysis, as detailed in the organizational structure of his Business Plan.
- **Job Creation and Economic Impact:** As detailed in the five-year hiring plan (Business Plan, Section 3), EarthLog Consulting's growth is directly tied to its technical project pipeline. Initial hires focus on core geoscience and GIS expertise, followed by engineering, compliance, and project management roles as regulatory demand and project volume increase. By Year 5, the firm will employ thirteen (13) highly skilled professionals, most in STEM occupations, strengthening local technical capacity in environmental security, water resource protection, and infrastructure resilience.
- **Self-Sustenance and Broader Contributions:** Through his entrepreneurial endeavor, Dr. Dessart secures his economic sustenance and also plays a crucial role in fostering employment opportunities and enhancing tax revenues, making the labor certification process impractical and unnecessary for his case.

The Petitioner has provided compelling evidence demonstrating his intention to operate as a self-employed entrepreneur and has outlined, in detail, how EarthLog Consulting will contribute to job creation, generate tax revenue, and deliver advanced geoscientific services that serve the national interest. By pursuing this entrepreneurial endeavor, Dr. Dessart ensures his own economic sustainability and makes a significant contribution to U.S. economic competitiveness and environmental protection.

3.3.2 THE U.S. WOULD STILL BENEFIT FROM THE FOREIGN NATIONAL'S CONTRIBUTION EVEN IF QUALIFIED U.S. WORKERS ARE AVAILABLE:

Given Dr. Dessart's vast experience and track record as a successful geoscientist, environmental consultant, and entrepreneur, he is positioned to make significant strides in his proposed endeavor in the United States. Even in scenarios where other skilled U.S. workers are available, the nation has much to gain from Dr. Dessart's contributions:

- **Unique Qualifications and Expertise:** Dr. Dessart brings a rare combination of skills, experience, and insights that are difficult to replicate. His over two decades of progressively responsible experience in geology, hydrogeology, environmental sanitation, and large-scale infrastructure projects position him to offer specialized knowledge and leadership that would significantly benefit the U.S. market, particularly in sectors involving water resource management, environmental protection, and critical infrastructure resilience.
- **Letters of Support and Testimonials:** The attached letters of support serve as a testament to Dr. Dessart's profound impact on the field. These letters, from distinguished academics, and industry professionals, highlight his innovative approaches to hydrogeological modeling, geophysical investigation, and environmental risk assessment, his leadership qualities, and the tangible, lasting benefits his contributions have brought to national-scale environmental and infrastructure projects.

Taking everything into consideration, while there may be qualified U.S. workers available, the exceptional expertise, unique perspective, and proven track record that Dr. Dessart brings to the environmental consulting and geosciences industry offer substantial and distinct benefits. His contributions, backed by strong endorsements from industry professionals, academics, and, demonstrate that his presence in the United States will significantly advance critical sectors and generate benefits that exceed the capabilities of other available workers. Therefore, it is in the national interest to prioritize his contributions by waiving the labor certification process.

3.3.3 WHETHER THE NATIONAL INTEREST IN THE FOREIGN NATIONAL'S CONTRIBUTIONS IS URGENT ENOUGH TO JUSTIFY BYPASSING THE LABOR CERTIFICATION PROCESS:

The national interest in Dr. Dessart's contributions is urgent enough to justify bypassing the labor certification process. His extensive experience and acumen underscore the immediate benefits his endeavor would bring to the United States.

- **Timeliness of Expertise:** The environmental and geological consulting industry, particularly in the context of rapid climate change and escalating threats to water security and infrastructure stability, urgently needs leaders who can drive innovation and implement cutting-edge strategies. Dr. Dessart's expertise in hydrogeological modeling, soil stability analysis, and environmental sanitation is urgently needed to meet these demands, especially as the U.S. implements the Infrastructure Investment and Jobs Act to modernize national assets.
- **Immediate Economic Impact:** Dr. Dessart's proposed endeavor, EarthLog Consulting, promises immediate economic benefits, including job creation and increased tax revenue. Rapid implementation of his business plans will stimulate economic activity, particularly in the region where his business will operate. Delaying his contributions by subjecting him

to the labor certification process could result in missed opportunities for economic growth, innovation, and the timely delivery of critical geoscientific services to government and clients.

- **Strategic Advantage:** Enabling Dr. Dessart to launch his endeavor without delay provides a strategic advantage to the U.S. environmental and infrastructure sectors. His proven ability to innovate, lead complex geological projects, and protect critical resources will enhance U.S. resilience against natural disasters and environmental degradation. In a fast-paced environment where climate-related risks demand immediate and expert attention, his presence is a vital asset.

In short, the national interest in Dr. Dessart's contributions is urgent and compelling. His unique skills, immediate impact on the environmental and geosciences industries, and the substantial economic and strategic benefits his venture promises justify bypassing the labor certification process. The rapid integration of his expertise will address critical needs in water security and infrastructure resilience, generating significant national benefits and constituting a strong case for the National Interest Waiver.

4. FINAL CONSIDERATIONS

From all topics discussed above and the attached evidence, it is "more likely than not" that:

1. The self-petitioner, Dr. Rafael Lima Dessart, satisfies the Advanced Degree requirement under INA 203(b)(2). He holds a Ph.D. in Water Resources and Environmental Sanitation and a Master's Degree in Geology, both of which are advanced degrees in a STEM field. Furthermore, he has accumulated over 22 years of progressive post-degree experience in geology, hydrogeology, environmental consulting, and geological risk assessment. His extensive record of achievement, including impactful projects in water resource management, soil stability, and environmental sanitation, demonstrates a degree of expertise significantly above that ordinarily encountered in the field. Together, his academic credentials and professional accomplishments firmly establish his eligibility under the statutory classification.
2. The proposed endeavor has substantial merit and national importance. EarthLog Consulting is aligned with vital U.S. national interests, including water security, climate change resilience, protection and modernization of critical infrastructure, and disaster prevention. The endeavor addresses pressing environmental and operational risks affecting public safety and is consistent with strategic federal initiatives, such as the Infrastructure Investment and Jobs Act and Executive Order 14008. Accordingly, it satisfies the first prong under the *Matter of Dhanasar* precedent.
3. The self-petitioner is well-positioned to advance the endeavor. Dr. Dessart has over two decades of progressive professional experience, a comprehensive and realistic business plan, and letters of support from distinguished academics and industry leaders. He has also committed substantial personal financial resources to the venture. His proven expertise in hydrogeological modeling, geophysical investigation, and environmental engineering, validated by his extensive career and numerous professional certifications, firmly establishes his ability to successfully conduct and scale the proposed endeavor in the United States.
4. On balance, it would be beneficial to the United States to waive the requirement of a job offer and labor certification. The labor certification process is impracticable for an entrepreneur like Dr. Dessart, whose role is to create, rather than fill, jobs. His endeavor

has the potential to create numerous specialized positions for U.S. workers in STEM fields, contributing significantly to the national economy and public safety. The urgency of addressing climate-related risks and water security further justifies bypassing the lengthy labor certification process.

Accordingly, Dr. Rafael Lima Dessart merits a favorable adjudication of this I-140 petition under the Employment-Based Second Preference category with a request for a waiver of the job offer and labor certification requirements, pursuant to INA §203(b)(2)(B). His qualifications, leadership, and proven impact in the field of Geosciences and Environmental Engineering distinctly align with the legislative intent of the National Interest Waiver provision.

We respectfully request USCIS to approve this petition in light of the overwhelming evidence of national benefit and professional excellence.

Should you require any further information or documentation, please do not hesitate to contact my office. Thank you in advance for your kind assistance with this matter.

Sincerely,



Otavio Haverroth Silva

California Bar # 343486

Exhibit list

Exhibits:

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Exhibit B: Eligibility Criteria - Advanced Degree - Work Records

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C.II - Second Prong - Well-Positioned to Advance the Proposed Endeavor

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Exhibit A: Resume

Rafael Lima Dessart
Curriculum Vitae

December/2025

Curriculum Vitae

Name	Rafael Lima Dessart		
Date of birth	08/20/1975 - Porto Alegre/Rio Grande do Sul - Brazil		
Lattes ID	5189639529553875		

2

- 2019 - 2019** Short Course in Applied Geophysics in Groundwater Contamination. (Workload: 1h).
Oficina de Textos, OT, Brazil
Keywords: GEOPHYSICS, Hydrogeology
- 2018 - 2018** Short course in Geological Geotechnical Investigation for Infrastructure Works.
(Workload: 1h).
Oficina de Textos, OT, Brazil
Keywords: Geotechnics
- 2017 - 2017** Short course in Gamma Spectrometry: Concepts and applications in mineral
exploration. (Workload: 5h).
Federal University of Pampa, UNIPAMPA, Bage, Brazil
- 2015 - 2015** Short course in The Dynamic Earth: A Course for Educators. (Workload: 32h).
American Museum of Natural History, AMNH, New York, United States
- 2014 - 2014** Remote Sensing: Continuing Education. (Workload: 112h)
National Institute for Space Research, INPE, Sao Jose Dos Campos, Brazil
- 2014 - 2014** Short course in Applied Geophysics to Mineral Exploration. (Workload: 7h).
Brazilian Society of Geophysics, SBGF, Rio De Janeiro, Brazil
- 2014 - 2014** Short course in Pedagogical Training. (Workload: 24h).
Federal University of Pampa, UNIPAMPA, Bage, Brazil
- 2013 - 2013** Short course in Google Products - Enhancing the use of maps. (Workload: 1h).
Mundogeo, MUNDOGEO, Brazil
Keywords: Georeferencing
- 2012 - 2012** Short course in GIS day: Connected to the future through Geocollaboration.
(Workload: 60h).
Mundogeo, MUNDOGEO, Brazil
Keywords: Georeferencing
- 2012 - 2012** Short course in Update in Topography and Geodesy. (Workload: 6h).
Allcomp, ALLCOMP, Brazil
Keywords: Georeferencing
- 2010 - 2010** Short course in Geotechnologies for Natural Disasters. (Workload: 16h).
Brazilian Association of Sanitary and Environmental Engineering, ABES,
Rio De Janeiro, Brazil
- 2003 - 2003** Short course in I Workshop: Groundwater Management. (Workload: 8h).
Brazilian Association of Groundwater (RS), ABAS - RS, Brazil
Keywords: Hydrogeology
- 2000 - 2000** University extension course in Techniques and Procedures for Working with Fossils.
(Workload: 16h).
University of Vale do Rio dos Sinos, UNISINOS, Sao Leopoldo, Brazil
- 1995 - 1995** Short course in Word for Windows. (Workload: 30h).
National Service for Commercial Learning - RS, SENAC/RS, Porto Alegre, Brazil
Keywords: Computing
- 1995 - 1995** Short course in Excel. (Workload: 30h).
National Service for Commercial Learning - RS, SENAC/RS, Porto Alegre, Brazil
Keywords: Computing
- 1994 - 1994** Short course in Windows. (Workload: 9h).

National Service for Commercial Learning - RS, SENAC/RS, Porto Alegre, Brazil

Keywords: Computing, Basics of Windows and applications, Program and file manager, PIF Editor

1994 - 1994 Short course in PC Microcomputer Operator. (Workload: 45h).
National Service for Commercial Learning - RS, SENAC/RS, Porto Alegre, Brazil
Keywords: Computing, MS/DOS System

1994 - 1994 Short course in Microcomputing - Introduction to the Area. (Workload: 15h).
National Service for Commercial Learning - RS, SENAC/RS, Porto Alegre, Brazil
Keywords: Computing

Work Experience

Geomap Geologia LTDA - GEOMAP

2011 - 2013 Affiliation: Collaborator, Job Title: Geologist, Workload: 40h, Regime: Geomap Geologia LTDA, Full-time

Additional information:

#9679; Responsible for providing environmental licensing advisory and consulting services for small to large mining companies, preparing reports, technical opinions, and geotechnical assessments; #9679; Responsible for preparing environmental reports for civil construction projects, identifying areas suitable for project execution; #9679; Conducting topographic surveys to determine site morphology; #9679; Performing environmental liability assessments at fuel stations, preparing reports and technical assessments for activity renewals, identifying levels of contamination; #9679; Defining areas for landfill location, ensuring compliance with environmental legislation; #9679; Organizing geological databases and performing quality control; #9679; Experience in engaging with local communities to obtain permission for work on private and communal lands.

Neocorp Desenvolvimento de Projetos LTDA - NEOCORP

2008 - 2009 Affiliation: Employee, Job Title: Geologist, Workload: 40h, Regime: Neocorp Desenvolvimento de Projetos LTDA, Full-time

Additional information:

#9679; Responsible for providing environmental and geological advisory and consulting services for small to large companies, implementing and developing geophysical survey methods; #9679; Performing processing and analysis of bathymetric data for data acquisition and treatment; #9679; Preparing Environmental Impact Reports – EIA and RIMA, identifying and analyzing soil and water contamination, and conducting site studies for landfill location; #9679; Conducting studies to detect buried contaminants using geophysical methods (GPR) with site location and water and soil sampling for laboratory analysis; #9679; Conducting studies for the location of small hydroelectric plants (PCH).

University of Vale do Rio dos Sinos - UNISINOS

2005 - 2008 Affiliation: Other (specify), Job Title: Geologist

Activities

08/2000 - 12/2001 Research and Development, Center for Exact and Technological Sciences

*Research lines:
sequence stratigraphy*

Federal University of Pampa - UNIPAMPA

2013 - 2015 Affiliation: Temporary contract, Job Title: Substitute Professor of Higher Education, Workload: 40h, Regime: Federal University of Pampa, Full-time

Additional information:

#9679; Responsible for implementing the pedagogical proposal by teaching courses in Geology, Geophysics,

Mining Technology, and Environmental and Sanitary Engineering, facilitating the learning process, covering the full course program, delivering the scheduled number of classes, and fostering students' ongoing interest in study, reflection, and pursuit of new knowledge; #9679; Focus on courses in Remote Sensing, GIS/RS, Topography, Earth System, Hydrogeology, Geomorphology, Climatology, and Hydrology; #9679; Participation in examining committee, co-supervising and approving academic works; #9679; Publication of scientific articles in accordance with different projects conducted in the academic line; #9679; Encouragement of students to use bibliographic materials related to the discipline by consulting books and journals available in the library, contributing to a critical and reflective learning process; #9679; Recording, through an electronic register, of attendance, lesson content, academic performance results, and other information related to curricular components within the timeframe defined by the academic calendar.

Activities

11/2013 - 11/2015 Undergraduate studies, Geology

Courses taught:
Geomorphology, Climatology and Hydrology, Hydrogeology, Geological Mapping IV, Remote Sensing, Earth System, Geographic Information Systems and Digital Image Processing (GIS/DIP)

11/2013 - 11/2015 Undergraduate studies, Mining Technology

Courses taught:
Basic Computing, Remote Sensing

11/2013 - 11/2015 Undergraduate studies, Environmental and Sanitary Engineering

Courses taught:
Climatology and Hydrology, Alternative Energies, Geographic Information Systems and Digital Image Processing (GIS/DIP)

11/2013 - 11/2015 Undergraduate studies, Geophysics

Courses taught:
Geographic Information Systems and Digital Image Processing (GIS/DIP), Cartography, Remote Sensing

FTGEO CONSULTORIA - FTGEO

2013 - 2013

Affiliation: Consultant, Job Title: Geologist, Workload: 40h, Regime: FTGEO CONSULTORIA, Full-time

Additional information:

#9679;Responsible for providing environmental and geological advisory and consulting services for small to large companies, offering solutions across a wide range of activities related to geology, environment, and geoprocessing; #9679; Preparing Environmental Control Reports and Environmental Control Plans (RCA and PCA) and Annual Mining Reports (RAL); #9679; Conducting geophysical analysis using electrical resistivity methods to identify fractures for groundwater; #9679; Responsible for the permitting and location of deep tubular wells; #9679; Carrying out environmental licensing, including analysis of legal environmental documentation and interpretation of applicable environmental legislation; #9679; Preparing geological and geotechnical reports, identifying technical specifications for project approval.

CONSULTORIA AUTÔNOMA AMBIENTAL EM GEOLOGIA - DGEO

2016 - Present

Affiliation: Owner, Job Title: Geologist, Workload: 40, Regime: CONSULTORIA AUTONOMA AMBIENTAL EM GEOLOGIA. Full-time

Additional information:

#9679; Responsible for providing Geology consulting focused on Environmental Analysis, conducting geological mapping of terrains, analyzing key topographic aspects, and assessing deep tubular wells for subsequent preparation of reports, permits, and execution of activities for small to large companies; #9679; Preparing and identifying service proposals in accordance with application

specifics, prices, deadlines, and commercial conditions; #9679; Developing consulting work with implementation of reports, technical assessments, and indicators according to executed projects; #9679; Collecting and interpreting geological data to assess soil stability for management of contaminated areas, supporting road construction or evaluating landslide risk at excavation sites, among other applications; #9679; Responsible for monitoring water, effluent, and soil samples, updating environmental licenses and their conditions with regulatory agencies; #9679; Conducting field inspections for the preparation of non-compliance environmental reports, reporting to the environmental manager of the assisted company; #9679; Preparing reports such as EIA / RIMA (Environmental Impact Study / Environmental Impact Report), RAP (Preliminary Environmental Report), RAS (Environmental Control Plan), among others; #9679; Developing and implementing projects aimed at reducing environmental impact; #9679; Analyzing legal environmental documentation and interpreting applicable environmental legislation according to regulatory agencies; #9679; Mapping for groundwater and contributing to water resource management; #9679; Investigating and identifying how certain natural and artificial actions affect a territory; #9679; Responsible for detecting potential causes of depletion or contamination.

- . **National Council for Scientific and Technological Development - CNPq**
1999 - 2000 Affiliation: Scholarship Holder, Job Title: Research Assistant, Workload: 20h, Regime: National Council for Scientific and Technological Development Part-time
- . **Coordination for the Improvement of Higher Education Personnel - CAPES**
1998 - 1998 Affiliation: Scholarship Holder, Job Title: Research Assistant (PET), Workload: 20h, Regime: Coordination for the Improvement of Higher Education Personnel Part-time

Research lines

1. sequence stratigraphy

Projects

Research projects

2016 - 2018 Recognition of Prospective Indicators of Mineral Deposits in the Central-Southern Region of Rio Grande do Sul

Description: Mineral prospecting and geological research are the initial stages of the mining cycle. A nation's mineral potential depends on discoveries, evaluation, and careful development of mineral deposits. Financial investment, often high-risk, begins with mineral research rather than with the development of a mineral deposit. If planning is properly constructed and competently applied, it can lead to the discovery of economically valuable mineral deposits. The central-southern region of Rio Grande do Sul hosts high-grade deposits of copper, gold, lead, zinc, and silver. For many years, it was considered the Brazilian mining capital, however, the difficulty of extracting the region's ores and the decline in international market prices from the 20th century onward led to significant unemployment and the migration of labor to other sectors or population centers. This makes the area promising for the application of Mineral-Guide and Ore Correlation techniques. Various studies have been cited in the scientific literature relating lithology types, fluids, and associated mineralizations; however, many are fragmented and limited in scale, making prospective studies challenging. Indirect investigation techniques such as Remote Sensing through satellite image or aerial photograph analysis and interpretation, as well as terrestrial and airborne

Geophysics, will be employed. On the other hand, petrology, both macroscopic and microscopic, provides support for characterizing the main lithologies in the area of interest. Geochemistry, whether of whole rock, mineral, or isotopic analysis, is a highly useful tool for understanding the chemical composition involved at each stage related to the various types of mineralizations in the region. The combination of these techniques is employed to provide more comprehensive geological data for the area. The aim is to obtain insights into the geological processes that have acted over millions of years in the study area and to standardize the data so that it can be used by other researchers as a prospective guide for identifying new mineral prospects. The results obtained, particularly those related to mineralizations, can provide indicators for nearby areas, especially mineral occurrences related to the same geological environment or formed during the same geological period.

Status: Completed, Nature: Research projects

Students involved: Undergraduate (10); Doctorate (1);

Members: Rafael Lima Dessart; Cristiane Heredia Gomes (Leader); José Pedro Rebés Lima; Juliana Gimenes de Oliveira; Maximilian Fries; José Waldomiro Jimenez Rojas; Marco Antonio Fontoura Hansen; Diogo Gabriel Sperandio; Natália Pinheiro Borges; Aline Silva Barbosa; Jorge Tomas Trovo Echague; Joao Pedro Santana; Guilherme Pazzinato; Ana Paula Tavares; Barbara Furlan; Daniel Antunes Coppi; Barbara Barrio Caprara.

2014 - 2016 Analyses of alkaline earth metals and other metals in water, soil, and the atmosphere in the Caçapava do Sul region.

Description: The municipality of Caçapava do Sul is responsible for 80% of the limestone production in the state of Rio Grande do Sul. Limestone is a mineral product extracted from sedimentary rocks containing more than 30% calcium carbonate. It is mainly used in the production of cement, lime and chalk, as a flux in metallurgy, in glass manufacturing, ornamental stone, among other uses. It is widely used to correct soil pH in agriculture. Based on the aforementioned ideas, this proposal seeks to investigate the concentration of certain alkaline earth metals and other metals in water, soil and air in the area of the lime kilns, located in the 1st district of Caçapava do Sul. Two environmental consequences affecting the population caused by mining are the noise generated by machinery and the high levels of dust released into the air. Depending on wind patterns or surrounding land cover, suspended particles may travel several kilometers away from the mining site, affecting the health of downstream residents, especially those who already suffer from pulmonary problems. It is known that there are several inhabitants living near the mining operations, which motivated us to investigate the effects of these elements in the region. To date, data on these effects are unknown in the literature or in the form of information available to the general population. The objective of this study is to analyze and quantify the chemical elements present in soil, water and air samples collected in the region of the 1st district of Caçapava do Sul, compare the results with the environmental legislation standards of FEPAM, conduct a data survey through research with the local community, and contribute to the understanding of the effects that limestone extraction may have on the local population.

Status: Completed, Nature: Research projects

Students involved: Undergraduate (10);

Members: Rafael Lima Dessart; Cristiane Heredia Gomes (Leader); Leonardo da Rosa Silva; Stener C Oliveira; Cassia S Freitas; Guilherme Pacheco Casa Nova; Mayra Lopes; Anelise Marlene Schmidt; Juliana Gimenes de Oliveira; José Waldomiro Jimenez Rojas; Caroline Vivian Mendes; Amanda Mello da Silva Freire; Mab Raísa Corrêa Leão Silva; Ana Carolina Gonçalves Ceolin; Ícaro Macedo

Funding agency(ies): Federal University of Pampa - UNIPAMPA

Number of outputs C, T & A: 3/.

2014 - 2016 ENVIRONMENTAL IMPACT ASSESSMENT OF WATERS FROM LIMESTONE MINING PROCESSES IN CAÇAPAVA DO SUL

Description: This project is linked to an agreement between UNIPAMPA and the company Dagoberto Barcellos S/A through a research project entitled Environmental Management System

Applied to the Limestone Mining Industry and the objective is to investigate the environmental impact of the waters contained in the mining pits, as well as in the sediments, in stream waters and groundwater through physicochemical analyses and the occurrence of metals through spectrophotometric analyses. Mining activities may cause contamination of rivers and soils by metals and other elements during and after their exploitation. Therefore, the presence of certain elements, such as heavy metals, represents environmental contamination problems, especially for water bodies. When some metals remain in the soil, they can strongly attack organic matter and minerals. In surface waters, metals can travel long distances, either in suspended form as small particles or in the form of free ions. The region of Caçapava do Sul is well known for limestone mining, where there are mining companies of commercial importance, and most mines are open-pit and, for this reason, exposed to climatic and atmospheric variations. Along with limestone mining, there is also the occurrence of other metals, which contributes to their inclusion in the residues of the respective extraction processes. These metals can be carried by rainwater or even reach the groundwater table, which has occurred as a result of abandoned mining operations. The major concern is the contamination of this groundwater table and the transport of metals to the streams that run through some mining areas and supply water for consumption in the city of Caçapava do Sul. The chemical analyses of this project will be complemented by a hydrogeological study of the mining region with the objective of evaluating the interaction between groundwater and rocks.

Status: Completed, Nature: Research projects

Students involved: Undergraduate (4);

Members: Rafael Lima Dessart; Cristiane Heredia Gomes; Guilherme Pacheco Casa Nova; Anelise Marlene Schmidt (Leader); Ana Paula Oliveira Mathias; Juliane Quintanilha; Juliano Fabris; Lucas Quaiati Vieira

Funding agency(ies): Dagoberto Barcellos S. A.-DB

2013 - 2014 Isotopic Composition of Sr, Nd, and Pb in Alkaline Basalts: a contribution to the magmatic evolution of the Flores, Corvo, and Faial Islands, Portugal.

Description: This project consists of studying, from an isotopic point of view (Nd, Sr and Pb), the alkaline basalts of three different islands of the Azores Archipelago: Flores, Corvo and Faial. Several studies on the origin of ocean island basalts have shown the influence of two or more mantle reservoirs involved in the process that generates these islands. This is due to the presence of heterogeneous isotopic compositions in the mantle. The islands of Flores, Corvo and Faial, together with six other islands that make up the Azores Archipelago, are potential candidates for contributing to the understanding of the source of alkaline basalts. They have proven to be a natural laboratory due to their geographic location and geological complexity. Located in the Atlantic Ocean, near the coast of Portugal, they are situated at the intersection of two oceanic plates: the American and the Eurasian, and under the direct influence of the Mid-Atlantic Ridge that separates the islands of Flores and Corvo, to the west, from the island of Faial, to the east. In addition, the island of Faial together with the island of Pico is located along the Faial-Pico fault, and the islands of Flores and Corvo lie along the probable extension of the North Azores Fault, the same fault that concentrates the islands of Terceira and São Miguel. Variation in the chemical composition of alkaline basalts is observed among the Azorean islands and also in relation to the Mid-Atlantic Ridge, where tholeiitic basalts are found. The isotopic system shows noticeable modification from one island to another, although it is relatively homogeneous. This study provides a contribution to the understanding of the nature and dynamics of the upper mantle as a function of the Sr, Nd and Pb isotopic composition of the alkaline basalts from the islands of Flores, Corvo and Faial. And there is nothing better to understand the configuration of the Earth's interior and exterior than to understand what happens in recent times. The Azorean islands are a natural laboratory, with young rocks that can assist in the study of older rocks in other locations around the world.

Status: Completed, Nature: Research projects

Students involved: Undergraduate (8);

Members: Rafael Lima Dessart; Cristiane Heredia Gomes (Leader); Adriane Machado; Guilherme Casanova; Farid Chemale Junior; Barbara Victória Reffatti Andrade; Felipe Augusto Nascimento

de Jesus.

2013 - 2014 Characterization of the Chemical Behavior of Minerals from Villarrica Volcano, Chile.
Description: This project consists of the study of Pleistocene and Holocene magmatism evidenced in the volcanic sequence of the Villarrica volcano, Chile, which, like many still active volcanoes, represents a didactic example. In the dataset obtained, petrographic techniques, electronic imaging, and mineral geochemistry will be used on the different deposits that make up the Villarrica volcano. Thus, the aim is to understand the relationships and establish close links between the compositional, mineralogical, textural, and structural aspects of its constituent rocks and the crystallization environment of the igneous bodies. In addition, the project seeks to contribute to the research collection in projects that encompass volcanic deposits and their correlation with similar rocks from the Pampas region.

Status: Completed, Nature: Research projects

Students involved: Undergraduate (1);

Members: Rafael Lima Dessart; Cristiane Heredia Gomes (Leader); Guilherme Casanova; Ariane Tamara dos Santos Duarte

2005 - 2008 Parameterization of the lower Doce River valley for stratigraphic modeling
Description: The identification of canyons associated with incised valleys in the Eocene of the Santos Basin has renewed interest in quantifying the processes involved in the initiation and infilling of incised valleys. The Lower Doce River Valley region had already been the subject of studies by Petrobras in the 1970s due to the development of an extensive coastal plain and the existence, in the subsurface, of fluvial and estuarine deposits filling valleys. In addition to incised valleys containing important reservoirs associated with their infilling phases, they also represent important conduits for the transfer of continental sediments to basinal areas, in this case associated with phases of incision and the formation of unconformities. Thus, it is essential to understand variations in the rates of accommodation space generation and sediment supply, as these factors control depositional episodes and sediment bypass. Quantitative studies of these processes are fundamental for numerical simulations of sedimentation based on real geological information. The combination of data on temporal variations in rates of sediment accumulation or bypass with information on sediment volumes produced in source areas (a topic outside the scope of the present project) is of great value in formulating more realistic quantitative predictions about temporal variations in the volume of sediments transferred to basinal regions. In addition, understanding the stratigraphic and depositional architecture generated during accumulation phases and compartmentalized by surfaces produced during erosion and bypass phases allows the definition of the characteristics of incised valley fills in terms of the spatial distribution of reservoir and seal facies. Thus, the project aims to characterize the initiation, episodes, and rates of infilling of the lower Doce River valley, the evolution of the valley and the coastal plain, and to carry out their geological and seismic modeling...

Status: Completed, Nature: Research projects

Members: Rafael Lima Dessart; FACCINI, U. F. (Leader); PAIM, Paulo Sergio Gomes; ITAMAR IVO LEIPNITZ

1998 - 2005 Geological characterization of porous aquifers of the Guarani Aquifer System in the central strip of Rio Grande do Sul

Description: This project aims at the application and refinement of a methodology for analyzing the geometry and heterogeneities of sedimentary bodies of continental origin, with the purpose of producing a case study on their potential for understanding porous aquifer systems in the study areas. This methodology, successfully applied in the petroleum industry, provides for the integration of information acquired at different scales, including direct data (geological mapping, outcrop analysis, and petrographic samples) and indirect data (shallow geophysics, gamma-ray measurements in outcrops and wells), as a way to differentiate lithofacies associations with higher and lower permeability, contributing to better utilization and management of aquifers. Targeting

primarily the regions with the highest population density in the Central Depression of the state (Santa Maria and the Sinos River Valley), and including three doctoral dissertations (PPGEO-UNISINOS), this project aims to detail the stratigraphic architecture of specific portions of the Guarani Aquifer, contributing to the clarification of its complexity in the study areas. Based on the selection of areas and type wells for each identified geological setting, the project seeks to establish criteria for defining well protection perimeters under different hydrogeological conditions of the Guarani Aquifer System in the target areas of the study. The project constitutes an extension of the work developed by the GEOARQ project (PADCT/FINEP; 31.00.004/98-0) and a further development of the aforementioned methodological approach for geological characterization and analysis of sedimentary bodies that host groundwater.

Status: Completed, Nature: Research projects

Students involved: Undergraduate (3); Doctorate (5);

Members: Rafael Lima Dessart; FACCINI, U. F. (Leader); PAIM, Paulo Sergio Gomes; Átila Augusto Stock da Rosa; Arnaldo Giardin; Osmar G. Wöhl Coelho; Nuno Lamas Pimentel; Diego Erba; Fábio Wankler; Carlos Heine; José Luiz Flores Machado; Maria Carolina de Araújo Silva; Izamara Teca Cordeiro de Oliveira

Funding agency(ies): Mineral Resources Research Company-CPRM, Rio Grande Sanitation Company-CORSAN, National Council for Scientific and Technological Development-CNPq, Coordination for the Improvement of Higher Education Personnel-CAPEs, RESEARCH SUPPORT FOUNDATION OF THE STATE OF RIO GRANDE DO SUL-FAPERGS, University of Lisbon-UL, University of Vale do Rio dos Sinos-UNISINOS, Federal University of Roraima-UFRR, Federal University of Santa Maria-UFSM

Technological development projects

2018 - 2020 Implementation of the Fission-Track Dating Laboratory (NUDATF)

Description: This proposal aligns with scientific efforts to encourage UNIPAMPA researchers to increase the number of patents, aiming to produce knowledge that supports the development, implementation, and improvement of scientific methodologies focused on the problems of the Gaúcho Pampa, thereby contributing to the enhancement of research quality at UNIPAMPA and in Brazil. This proposal aims to implement and routinely operate the Fission Track Dating Center (NUDATF) at UNIPAMPA, which is intended to promote the development of research in the field called Fission Track Dating in high-temperature minerals (quartz, garnet, epidote, etc.), differently from what the centers at other universities develop (apatite and zircon). This will make it possible to study thermochronology, that is, to reconstruct the Time-Temperature evolution of rocks in the Central-Southern portion of the South-Rio-Grandense Shield in the Caçapava do Sul region. This proposal for the creation of NUDATF, for the study of fission track dating in quartz, epidote, garnet, and others, at the Caçapava do Sul campus, represents an opportunity to continue and advance the research already being developed by the group, with the aim of inducing the process of creation and strengthening of innovative methodology, redirecting efforts toward filing a patent with NIT/UNIPAMPA. In this way, it facilitates the implementation and operationalization of systematic information with minimal resources on geological events through Science, Technology, and Innovation methodologies. The use of methodological and scientific improvements, seeking both theoretical and practical actions, is fundamental for understanding, facilitating the assimilation of knowledge, and training high-level human resources with academic excellence at our campus and at UNIPAMPA. The use of fission tracks in minerals formed at temperatures between 300 and 1200°C aims to understand the thermal characteristics of the regions where these minerals formed and has been successfully applied in modeling and understanding environments affected by uplift, erosion, and collapse. For technological innovation applications, the main focus is on observing the quantity and size of fission tracks on the mineral surfaces. In general, quartz, epidote, and garnet contain a few parts per million of uranium as an impurity. The most abundant uranium isotope is

²³⁸U, which decays by spontaneous fission. This fission produces a disruption in the crystal structure of the minerals, forming regions of electronic instability called spontaneous tracks and releasing energy of approximately 210 MeV. Spontaneous tracks are continuously produced over time and remain stable at different temperatures. However, it is necessary to know the number of induced fission tracks, those originating from the fission of ²³⁵U. When the mineral is subjected to chemical etching, the tracks are enlarged to the point of being observable under an optical microscope. In this context, the number of tracks per unit area is a function of the age of the last thermal event recorded in the region where the minerals were located. These events can include fault movement, volcanism, and metamorphism. Similarly, the size of the fission track is a function of the temperature experienced by the region at the time of the geological event. It is also possible to calculate erosion rates over time based on a combination of track age and size. Fission tracks form progressively over time at a rate determined solely by the uranium concentration in the minerals. After formation, fission tracks progressively decrease at a rate that depends mainly on temperature (Fleischer et al., 1975; Gleadow et al., 1986).

Status: Completed, Nature: Technological development projects

Students involved: Undergraduate (4);

Members: Rafael Lima Dessart; Diogo Gabriel Sperandio; Natália Pinheiro Borges; GOMES, CRISTIANE HEREDIA (Leader); Aline Silva Barbosa; Arthur Viçozzi; Guilherme Pazinato Dias

Extension project

2014 - Present PAMPA VIRTUAL GEOLOGICAL MUSEUM

Description: The present project introduces the Pampa Virtual Geological Museum, which will provide, through the UNIPAMPA Caçapava do Sul Campus website (<http://porteiros.unipampa.edu.br/cacapava/>), a set of images referring to different lithological types from various regions of Brazil, Europe, and Central America available in the University's collection (Caçapava do Sul Campus), together with detailed information accessible to the user. The Museum develops a process of analysis and treatment of the images provided, aiming at the use of the image as a historical document carrying information that allows the pursuit of knowledge and theoretical-didactic understanding for students and teachers from both external and internal communities. The user will be invited to take a virtual tour through an environment of geological images, chemical data, and parageneses that extends beyond the physical space of the classroom.

Status: Ongoing, Nature: Extension project

Students involved: Undergraduate (5);

Members: Rafael Lima Dessart; Cristiane Heredia Gomes (Leader); Marco Antonio Fontoura Hansen; Dionatan Daniel Giusti; Diogo Gabriel Sperandio; Natália Pinheiro Borges; Catarine do Carmo; Caio Felipe Xavier

Funding agency(ies): Federal University of Pampa-UNIPAMPA

2014 - Present Geodiversity: A Concept in Practice - New Talents in Exact and Earth Sciences

Description: Part of the larger project entitled "New Talents in Exact and Earth Sciences." It aims to provide participating students and teachers with the opportunity to build knowledge about the importance of geological study and its benefits through everyday situations that are coherent with their realities. In this way, it seeks ways to mitigate and/or remediate environmental impacts through awareness and a balance between humans and the environment. In a sense, all scientific practice reflects a historical moment, and the scientist is inevitably both a being and a social agent. It is known that geodiversity is the support for life on Earth, and its scope creates synergies among all sciences, promoting the continuous improvement of life for future generations.

Status: Ongoing, Nature: Extension project

Members: Rafael Lima Dessart; Cristiane Heredia Gomes (Leader)

Funding agency(ies): Federal University of Pampa-UNIPAMPA

Journal reviewer

2025 - Present Journal of Applied Geophysics

Additional information: International scientific journal focused on applied geophysics, electromagnetic methods, and hydrogeology. Indexed in recognized databases and operating a peer-review process. The publication addresses topics such as geophysical prospecting in complex environments, methodological innovation, and the integration of techniques including TEFSM, AMT, TEM, and MALM.

2017 - Present CREATIVE EDUCATION

2017 - Present REM - International Engineering Journal

2019 - 2019 11th International Symposium on Teaching, Research and Extension - SIEPE

2018 - 2018 10th International Symposium on Teaching, Research and Extension - SIEPE

2017 - 2017 9th International Symposium on Teaching, Research and Extension - SIEPE

2016 - 2016 Proceedings of the 8th International Symposium on Teaching, Research and Extension - SIEPE

2015 - 2015 Proceedings of the 7th International Symposium on Teaching, Research and Extension - SIEPE

Areas of expertise

1. Broad area: Exact and Earth Sciences / Area: Geosciences / Subarea: Geology / Specialty: Mineral Exploration
2. Broad area: Exact and Earth Sciences / Area: Geosciences / Subarea: Geology / Specialty: Environmental Geology
3. Broad area: Exact and Earth Sciences / Area: Geosciences / Subarea: Geophysics / Specialty: Applied Geophysics
4. Broad area: Exact and Earth Sciences / Area: Geosciences
5. Broad area: Exact and Earth Sciences / Area: Geosciences
6. Broad area: Exact and Earth Sciences / Area: Geosciences

Academic Production

Bibliographic production

Full articles published in journals

1. **DESSART, RAFAEL LIMA**; LIMA, JACSON GOSMAN GOMES DE; PEREIRA, HENRIQUE GARCIA. GROUNDWATER PROSPECTION BASED ON STRUCTURAL ANALYSIS OF THE MUNICIPALITY OF BAGÉ, RS.. Boletim Goiano de Geografia, v.43, pp. 1-22, 2023.

Keywords: structural analysis, Shuttle Radar Topography Mission margins, positive and negative lineaments

2. **DESSART, RAFAEL LIMA**; REGINATO, PEDRO ANTONIO ROEHE; GALLAS, JOSÉ DOMINGOS FARACO. Use of aeromagnetic and electromagnetic data in the evaluation of structures controlling fractured aquifers and well productivity in the Crystalline Basement Aquifer System, in the Bagé-RS Region.

ÁGUAS SUBTERRÂNEAS, v.37, pp. 1-18, 2023.

Keywords: Crystalline Aquifer System, Aeromagnetometry, Structural Compartmentalization, Hydrogeology
Areas of knowledge: Aeromagnetometry, Hydrogeology

3. **DESSART, R. L.**; REGINATO, P. A. R.; GOMES, C. H.; LIMA, J. G. G.. ANALYSIS OF THE STRUCTURAL COMPARTMENTALIZATION OF THE CRYSTALLINE BASEMENT AQUIFER SYSTEM IN THE MUNICIPALITY OF BAGÉ (RS) BASED ON LINEAMENTS (SRTM AND MAGNETIC) AND HYDROGEOLOGICAL DATA. ÁGUAS SUBTERRÂNEAS, v.34, pp. 1-13, 2020.

Keywords: Crystalline Aquifer System, Aeromagnetometry, Structural Compartmentalization, Hydrogeology
Areas of knowledge: HYDROGEOLOGY, Applied Geophysics, Aeromagnetometry

4. GOMES, CRISTIANE HEREDIA; **DESSART, R. L.**; SPERANDIO, DIOGO GABRIEL; BORGES, N. P.. APPROACH TO GEOSCIENCES IN EARLY CHILDHOOD EDUCATION IN CAÇAPAVA DO SUL, RS: THE FORMATION OF VOLCANOES. ARETÉ (MANAUS), v.11, pp. 44-56, 2018.

5. GOMES, CRISTIANE HEREDIA; SPERANDIO, DIOGO GABRIEL; **DESSART, RAFAEL LIMA**; GIUSTI, DIONATAN DANIEL. Detection and Evaluation of metals in soil under influence of mining by Dispersive Energy X-ray Fluorescence Spectrometry (EDXRF), Lavras do Sul/RS. CIÊNCIA E NATURA, v.40, p.70, 2018.

6. GOMES, C. H.; SPERANDIO, D. G.; **DESSART, R. L.**.. Cosmogenic nuclides: an analysis of a century of research in geosciences. CREATIVE EDUCATION, v.09, pp. 932-941, 2018.

7. GOMES, CRISTIANE HEREDIA; SPERANDIO, DIOGO GABRIEL; **DESSART, RAFAEL LIMA**. Cosmogenic nuclides: an analysis of a century of research in geosciences. TERRAE DIDACTICA (PRINT), v.14, pp. 207-216, 2018.

8. GOMES, CRISTIANE HEREDIA; SPERANDIO, DIOGO GABRIEL; **DESSART, RAFAEL LIMA**. Remote Sensing analysis of the meanders migration in the Mamorecillo River between 1985 and 2012, Bolivia. INTERNATIONAL JOURNAL OF ADVANCED ENGINEERING RESEARCH AND SCIENCE. v.5, pp. 221-228, 2018.

9. GOMES, CRISTIANE HEREDIA; SCHMIDT, ANELISE MARLENE; **DESSART, RAFAEL LIMA**; CASA NOVA, GUILHERME PACHECO. Geochemical analyses of water and public health of the Mangueirão and Salso Streams in Caçapava do Sul, RS, Brazil. Ambiente e Água Journal, v.12, p.760, 2017.

10. GOMES, C. H.; **DESSART, R. L.**; SPERANDIO, D. G.; OLIVEIRA, J. G.; BARROSO, I.; XAVIER, C. F.; CARMO, C.. Practicing Knowledge and Building Ideas in Geosciences. Conexão UEPG Journal, v.13, p.106, 2017.

11. GOMES, CRISTIANE HEREDIA; **DESSART, RAFAEL LIMA**; BARROSO, ISSACAR; CEOLIN, ANA CAROLINA GONÇALVES. The Contributions of the Monitoring: Program to the Education in Geoscience and in the Monitor's Academic Formation. Creative Education. v.07, pp. 2721-2732, 2016.

Published books

1. **DESSART, R. L.**.. Knowledge Integration: A Multidisciplinary Approach to Science, 1st ed. São José dos Pinhais: Seven, 2025, v.1.

Keywords: Knowledge Integration, Artificial Intelligence (AI), Multidisciplinary Research, Scientific Innovation, Global Challenges

2. **DESSART, R. L.**.. Accuracy of Coordinates Obtained Through Different Methods and Equipment, 1st ed., 2018, v.1, p.41.

3. GOMES, C. H.; **DESSART, R. L.**; SPERANDIO, D. G.; BORGES, N. P.. Geology of the Pampa in Photography: The Geodiversity of the Gaúcho Pampa, 1st ed., 2017, v.1, p.58.

Area of Knowledge: Regional Geology

Sectors of activity: Scientific Research and Development

Published book chapters

1. LIMA, J.G.G; PONTELLI, M.E.; MATOS, A.C.L.S; **DESSART, R.L.** Geomorphological Compartmentalization in the Central Sector of the Planalto das Araucárias: Correlation between Lithology, Structure, Roughness, Slope, and Terrain Curvature. In: Natural Dynamics, Preservation, and Use of the Environment, 1st ed., Curitiba: Appris, 2023, pp. 1-229.

Keywords: Lithology, Structure, Roughness, Slope, Terrain Curvature

Edited books

1. GOMES, C. H.; **DESSART, R. L.**; JUNGES, K.; SPERANDIO, D. G.; KEMERICH, P. D. C.. NITRATE CONCENTRATIONS IN SURFACE AND GROUNDWATER IN A MINING AREA IN THE MUNICIPALITY OF CAÇAPAVA DO SUL, RS, BRAZIL, 1st ed., Ponta Grossa: Atena Publisher, 2018, p.118.

Keywords: Water Quality, Mining, Methemoglobinemia

Full papers published in conference proceedings

1. B BARBOSA, A. S.; **DESSART, R. L.**; GOMES, C. H.; BORGES, N. P.; SPERANDIO, D. G. Geosciences and Extension: Aligning Community and University. In: 10th International Symposium on Teaching, Research and Extension (SIEPE), 2018, Santana do Livramento. **Proceedings of the 10th International Symposium on Teaching, Research and Extension (SIEPE)**, 2018,
2. BORGES, N. P.; SPERANDIO, D. G.; GOMES, CRISTIANE HEREDIA; **DESSART, R. L.** Geosciences and Robotics: Teaching Volcanic Systems to Children. In: 10th Southern Brazilian Symposium on Geology, 2017, Curitiba. **Proceedings of the 10th Southern Brazilian Symposium on Geology**, 2017,
3. BORGES, N. P.; SPERANDIO, D. G.; GOMES, CRISTIANE HEREDIA; **DESSART, R. L.** The Use of Remote Sensing to Detect and Monitor Meander Migration in the Mamorecillo River, Bolivia, Between 1985 and 2012. In: 10th Southern Brazilian Symposium on Geology, 2017, Curitiba. **Proceedings of the 10th Southern Brazilian Symposium on Geology**, 2017,
4. OLIVEIRA, J. G.; DESSART, R. L.; BARROSO, I.; GOMES, C. H. Physical Analysis of Sediments Deposited in two Water Bodies in the City of Caçapava do Sul. In: 7th International Symposium on Teaching, Research and Extension (SIEPE), 2015, Alegrete. **Proceedings of the 7th International Symposium on Teaching, Research and Extension (SIEPE)**, Alegrete, 2015, single volume,

Abstracts published in conference proceedings

1. GOMES, C. H.; SPERANDIO, D. G.; DIAS, G. P.; VICOZZI, A.; **DESSART, R. L.** New insights into the track etching in olivine crystals from Azores, Pt. In: 36th IGC, 2020, New Delhi. **Proceedings of the 36th IGC, 2020**. 2020, v.1,
2. SPERANDIO, D. G.; GOMES, C. H.; **DESSART, R. L.** Geochemical Assessment of Soil from the Municipal Cemetery of Mata by X-Ray Fluorescence. In: 32nd Integrated Academic Journey, 2017, Santa Maria. **Proceedings of the 32nd Integrated Academic Journey**, 2017,
3. SPERANDIO, D. G.; BARBOSA, A. S.; BORGES, N. P.; **DESSART, R. L.**; GOMES, C. H.. Teaching Geosciences Through Extension: Teaching Actions Focused on the Geology of the Gaúcho Pampa. In: 32nd Integrated Academic Journey, 2017, Santa Maria. **Proceedings of the 32nd Integrated Academic Journey**, 2017,
4. SILVA, L. R.; GOMES, C. H.; DESSART, R. L.; OLIVEIRA, S. C.. Chemical Analysis of Water Quality in a Limestone Mining Region. In: 7th International Symposium on Teaching, Research and Extension (SIEPE), 2015, Alegrete. **Proceedings of the 7th International Symposium on Teaching, Research and Extension (SIEPE)**, Alegrete, 2015, single volume,
5. BERALDO, D. E.; GOMES, C. H.; **DESSART, R. L.** The Geophysical Method of Electrical Resistivity as a Tool for Structural Analysis. In: 7th International Symposium on Teaching, Research and Extension (SIEPE), 2015, Alegrete. **Proceedings of the 7th International Symposium on Teaching, Research and Extension (SIEPE)**, Alegrete, 2015, single volume,

6. SILVA, L. R.; OLIVEIRA, S. C.; FREITAS, C. S.; MENDES, C. V.; DESSART, R. L.; GOMES, C. H. ANALYSIS OF ALKALINE EARTH METALS IN WATER IN CAÇAPAVA DO SUL-RS. In: 6th International Symposium on Teaching, Research and Extension (SIEPE), 2014, Bagé. **Proceedings of the 6th International Symposium on Teaching, Research and Extension (SIEPE)**, 2014, vol. 6,
7. FACCINI, U. F.; Garcia, A.J.V.; Lavina, E.L.; Paim, P.S.G.; DESSART, R. L.; Pagano, C.G.; Goulart, G.. Coastal to Shallow analogue model for gas reservoir in the Paraná basin (Southern Brazil) draw out from surface and shallow subsurface data. In: In: 31st International Geological Congress, 2000, Rio de Janeiro. **Proceedings of the International Congress of Geology**, 2000,

Extended abstracts published in conference proceedings

1. **DESSART, R. L.**; GOMES, C. H.; LIMA, J. G. G. ANALYSIS OF THE STRUCTURAL COMPARTMENTALIZATION OF THE CRYSTALLINE BASEMENT AQUIFER SYSTEM IN THE MUNICIPALITY OF BAGÉ (RS) BASED ON AEROMAGNETIC AND GEOLOGICAL DATA. In: 9th Uruguayan Congress of Geology, 2019, Trinidad. **9th Uruguayan Congress of Geology**, 2019, vol. 1, pp. 144-148

Keywords: Crystalline Aquifer System, Aeromagnetometry, Structural Compartmentalization, Hydrogeology
Areas of knowledge: HYDROGEOLOGY, Geophysics, Aeromagnetometry

2. JUNGES, K.; GOMES, C. H.; SPERANDIO, D. G.; **DESSART, R. L.**; BORGES, N. P.; BARBOSA, A. S.. Analysis of Nitrate Concentrations in Surface and Groundwater in a Mining Area in Caçapava do Sul-RS. In: 16th Brazilian Congress of Geochemistry, 2017, Armação dos Búzios. **Proceedings of the 16th Brazilian Congress of Geochemistry**, 2017,
3. BORGES, N. P.; SPERANDIO, D. G.; GOMES, C. H.; **DESSART, R. L.** Geosciences and Robotics: Teaching Volcanic Systems to Children. In: 10th Southern Brazilian Symposium on Geology, 2017, Curitiba. **Proceedings of the 10th Southern Brazilian Symposium on Geology**, 2017,
4. BARBOSA, A. S.; SPERANDIO, D. G.; BORGES, N. P.; GOMES, C. H.; **DESSART, R. L.** Geoconservation and Teaching the Geological Heritage of the South Rio Grande Shield Through the Virtual Geological Museum of the Pampa. In: 4th Brazilian Symposium on Geological Heritage and 2nd Luso-Brazilian Meeting on Geomorphological Heritage and Geoconservation, 2017, Ponta Grossa. **Proceedings of the 4th Brazilian Symposium on Geological Heritage and 2nd Luso-Brazilian Meeting on Geomorphological Heritage and Geoconservation**. 2017,
5. GOMES, C. H.; **DESSART, R. L.**; SPERANDIO, D. G.; BARBOSA, A. S. Geochemistry of Stream Sediments at the Confluence of the Jacuí and Vacacaí-Mirim River Basins as a Tool for Environmental Planning, RS, Brazil. In: 16th Brazilian Congress of Geochemistry, 2017, Armação dos Búzios. **Proceedings of the 16th Brazilian Congress of Geochemistry**, 2017,
6. BARBOSA, I.; OLIVEIRA, J. G.; GOMES, C. H.; **DESSART, R. L.** Preliminary Geochemistry of Surface Waters in the Municipality of Caçapava do Sul, RS, Brazil. In: 15th Congress of the Brazilian Association for Quaternary Studies-ABEQUA, 2015, Tramandaí. **Proceedings of the 15th Congress of the Brazilian Association for Quaternary Studies-ABEQUA**, 2015, vol. 1,

Oral Presentations and lectures

1. **DESSART, R. L.**; GOMES, C. H.. Analysis of the Structural Compartmentalization of the Crystalline Basement Aquifer System in the Municipality of Bagé (RS) Based on Aeromagnetic and Geological Data, 2019. (Conference, Oral Presentation)
Keywords: Crystalline Aquifer System, Aeromagnetometry, Structural Compartmentalization, Hydrogeology
Areas of knowledge: Hydrogeology, Geophysics
2. **DESSART, R. L.** Integration of Geophysical and Structural Data in the Hydrogeological Investigation in the Municipality of Bagé/RS, 2017. (Seminar, Oral Presentation)
3. GOMES, C. H.; **DESSART, R. L.** Building a volcano, 2015. (Communication, Oral Presentation)

Other bibliographic productions

1. **DESSART, R. L.** Accuracy of Coordinates Obtained Using Different Methods and Equipment. Graduate Studies - Specialization., 2013. (Other bibliographic production)
2. **DESSART, R. L.** Stratigraphic Characterization of the Incised Valley Fill of the Lower Rio Doce during the Late Pleistocene–Holocene. Dissertation., 2009. (Other bibliographic production)
3. **DESSART, R. L.** Subsurface Geology and Preliminary Hydrogeological Considerations of the Arroio Capané Watershed Area, Cachoeira do Sul - RS, Brazil. Undergraduate Thesis., 2003. (Other bibliographic production)

Technical Production Technical Reports

1. **DESSART, R. L.**; ALMEIDA, T.. Colhilha Negra Wind Farm, 2023

Keywords: Geotechnics

Areas of Knowledge: GEOTECHNICS

Social Media, websites, blogs

1. GOMES, C. H.; **DESSART, R. L.**; HANSEN, M. A. F.; SPERANDIO, D. G.; XAVIER, C. F.; CARMO, C.; BORGES, N. P.; VICOZZI, A.; DIAS, G. P.; PAIXAO, G. M. X. PAMPA VIRTUAL GEOLOGICAL MUSEUM., 2016

Other technical productions

1. FACCINI, U. F.; Paim, P.S.G.; **DESSART, R. L.**; ITAMAR IVO LEIPNITZ. Parametrization of the Lower Rio Doce Valley for Stratigraphic Modeling., 2008. (Research report)
2. **DESSART, R. L.** Geology for Biologists - Field Methods, 1999. (Extension, Short course taught)

Advising and Supervision

Advising and supervision

Completed advising and supervision

Undergraduate theses

1. Douglas Beraldo. **Electrical Resistivity Survey in a Mining Pit for Fracture Detection and Contamination Plume Delimitation.** 2015. Program (Geology) - Federal University of Pampa

Undergraduate research

1. Caleb de Souza Ribeiro. **Voluntary Tutoring in Geomorphology for Geology.** 2015. Undergraduate

research (Geology) - Federal University of Pampa

2. Neymer Wesley Oliveira Guimarães. **Voluntary Tutoring in Geological Mapping IV**. 2015. Undergraduate research (Geology) - Federal University of Pampa

3. Victor Hugo Braga. **Voluntary Tutoring in Topography for the Geology Program**. 2015. Undergraduate research (Environmental and Sanitary Engineering) - Federal University of Pampa

4. Bruna Antunes de Oliveira. **Voluntary Tutoring in Topography for the Geology Program**. 2015. Undergraduate research (Environmental and Sanitary Engineering) - Federal University of Pampa

5. Magson Aguires Lorenzi. **Voluntary Tutoring in Remote Sensing**. 2014. Undergraduate research (Geology) - Federal University of Pampa

6. Tatiana Morais Alves. **Voluntary Tutoring in Earth System**. 2014. Undergraduate research (Geology) - Federal University of Pampa

7. Bruno Nunes Machado. **Voluntary Tutoring in Earth System**. 2014. Undergraduate research (Geology) - Federal University of Pampa

Events

Events

Participation in events

1. Poster Presentation at the **9th Uruguayan Congress of Geology**, 2019. (Congress) ANALYSIS OF THE STRUCTURAL COMPARTMENTALIZATION OF THE CRYSTALLINE BASEMENT AQUIFER SYSTEM IN THE MUNICIPALITY OF BAGÉ (RS) BASED ON THE USE OF AEROMAGNETIC AND GEOLOGICAL DATA..

2. **1st Mineral Exploration Workshop**, 2017. (Other)

3. **20th Seminar of the Graduate Program in Geology at UFPR**, 2017. (Symposium) Integration of geophysical and structural data in the hydrogeological investigation in the Municipality of Bagé/RS.

4. **Lecture Series of the 5th Academic Week of Geophysics**, 2014. (Meeting).

5. **5th Academic Week of Geophysics**, 2014. (Meeting)

6. **10th ABEQUA Congress**, 2005. (Congress)

7. **9th Inter-American Week and 2nd State Water Week**, 2002. (Seminar)

8. **2nd International Seminar on Agroecology, 3rd State Seminar on Agroecology, and 3rd National Meeting on Research in Agroecology**, 2001. (Seminar)

9. **8th Academic Meeting of Biology at UNISINOS - RABU**, 2001. (Meeting)

10. **14th National Week of Oceanography**, 2001. (Meeting)

11. **9th International Symposium on Teaching, Research, and Extension - SIEPE**, 2000. (Symposium)

12. **51st Annual Meeting of the Brazilian Society for the Advancement of Science**, 1999. (Meeting)

13. **1st Symposium on Volcanism and Associated Environments**, 1999. (Symposium)

14. **40th Brazilian Congress of Geology**, 1998. (Congress).

Examining Committee

Examining Committee

Participation in Undergraduate Thesis

Undergraduate Studies

1. GOMES, C. H.; **DESSART, R. L.**; CLEMENTE, I. M.. Participation in the thesis committee of Jéssica Godoy Pinto. **Use of Aerogeophysics for Geological Correlation in the Municipality of São Sepé-RS**, 2017. (Geology) Federal University of Pampa.
2. GOMES, C. H.; DESSART, R. L.; KEMERICH, P. D. C. Participation in the thesis committee of KARINE GOMES JUNGES. **ANALYSIS OF NITRATE CONCENTRATIONS IN SURFACE AND GROUNDWATER IN CAÇAPAVA DO SUL - RS**, 2016. (Geology) Federal University of Pampa.
3. ROJAS, J. W. J.; DESSART, R. L.; GOMES, C. H.. Participation in the examining committee of DÉBORA CAROLINE PERTILLI. **ENVIRONMENTAL STUDY OF THE VICINAL ROAD BETWEEN THE MUNICIPALITY OF CAÇAPAVA DO SUL AND THE CASCATA DO SALSO**, 2016. (Environmental and Sanitary Engineering) Federal University of Pampa.
4. SANTOS-MATOS, A. C. L.; DESSART, R. L.; CASANOVA, G.. Participation in the examining committee of PÂMELA NATHALIA GERMANO TELLES. **HYDROGEOCHEMICAL MAPPING OF THE MUNICIPALITY OF CAÇAPAVA DO SUL, RS**, 2016. (Geology) Federal University of Pampa.
5. FRIES, M.; DESSART, R. L.; ALBARNAZ, L. D.. Participation in the thesis committee of GLEICE CUNHA DE AQUINO. **USE OF GEOPHYSICS IN THE DETECTION AND CHARACTERIZATION OF A FRACTURED AQUIFER - CAÇAPAVA DO SUL/RS**, 2016. (Geology) Federal University of Pampa.
6. FRIES, M.; DESSART, R. L.; ALBARNAZ, L. D.. Participation in the thesis committee of GLEICE CUNHA DE AQUINO. **USE OF GEOPHYSICS IN THE DETECTION AND CHARACTERIZATION OF A FRACTURED AQUIFER - CAÇAPAVA DO SUL/RS**, 2016. (Geology) Federal University of Pampa.
7. GOMES, C. H.; DESSART, R. L.; ROJAS, J. W. J. Participation in the thesis committee of JÉSSICA GODOY PINTO. **USE OF AEROGEOPHYSICS FOR GEOLOGICAL AND GEOPHYSICAL CORRELATION IN THE MUNICIPALITY OF SÃO SEPÉ-RS**, 2016. (Geology) Federal University of Pampa.
8. FRIES, M.; DESSART, R. L.; LIMA, J. P. R.. Participation in the thesis committee of Dayvson Cerqueira Carvalho. **APPLICATION OF THE ELECTRICAL RESISTIVITY METHOD IN THE CHARACTERIZATION OF A FRACTURED AQUIFER - CAÇAPAVA DO SUL/RS.**, 2015. (Geophysics) Federal University of Pampa.
9. ROJAS, J. W. J.; DESSART, R. L.; LOPES, V. G.. Participation in the thesis committee of Anna Maria de Carvalho Lucas. **GEOPHYSICAL AND GEOTECHNICAL STUDY IN A RISK AREA IN THE MUNICIPALITY OF CAÇAPAVA DO SUL, RS**, 2015. (Geology) Federal University of Pampa.
10. FRIES, M.; DESSART, R. L.; LIMA, J. P. R.. Participation in the thesis committee of Monique Barcelos Moreira. **DETAILED MAGNETOMETRIC STUDY IN THE IDENTIFICATION AND CHARACTERIZATION OF ROCK DISCONTINUITIES AS SUPPORT FOR THE IDENTIFICATION OF AN AQUIFER.**, 2015. (Physiotherapy) Federal University of Pampa.
11. HANSEN, M. A. F.; DESSART, R. L.; ALBARNAZ, L. D.. Participation in the thesis committee of Lucas Quaiatti Vieira. **Geology and Geophysics of a Gold-Mineralized Environment**, 2015. (Geology) Federal University of Pampa.
12. DESSART, R. L.; GOMES, C. H.; FRIES, M.. Participation in the thesis committee of Pâmela Nathalia Germano Telles. **HYDROGEOCHEMICAL MAPPING OF THE MUNICIPALITY OF CAÇAPAVA DO SUL**,

RS, 2015. (Geology) Federal University of Pampa.

13. FRIGO, E.; LIMA, J. P. R.; **DESSART, R. L.**. Participation in the thesis committee of Karolliny Borssatto. **Geomagnetic Models conducted in the State of Rio Grande do Sul.**, 2015. (Geophysics) Federal University of Pampa.

14. DESSART, R. L.; GOMES, C. H.; FRIES, M.. Participation in the thesis committee of André Gaino, **Pathology of boreholes: optical logging method as an analysis tool in wells of Santana do Livramento - RS**, 2015. (Geology) Federal University of Pampa.

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: January 26, 2026.

Rafael Lima Dessart
Curriculum Vitae

dezembro/2025

Rafael Lima Dessart

Curriculum Vitae

Identificação

Nome Rafael Lima Dessart
Nascimento 20/08/1975 - Porto Alegre/RS - Brasil
Lattes ID
5189639529553875

Nome em citações bibliográficas DESSART, R. L.;DESSART, RAFAEL LIMA

Idiomas

Inglês Compreende Bem , Fala Razoavelmente , Escreve Razoavelmente , Lê Bem
Espanhol Compreende Bem , Fala Razoavelmente , Escreve Razoavelmente , Lê Bem

Formação acadêmica/titulação

- 2017 - 2022** Doutorado em Recursos Hídricos e Saneamento Ambiental.
Universidade Federal do Rio Grande do Sul, UFRGS, Porto Alegre, Brasil
Título: Integração de dados geofísicos e estruturais na investigação hidrogeológica no município de Bagé/RS., Ano de obtenção: 2022
Orientador: Pedro Antônio Roehe Reginato
Co-orientador: Cristiane Heredia Gomes
Palavras-chave: Aeromagnetometria, Hidrogeologia, Sistema Aquífero Cristalino
Áreas do conhecimento: Aeromagnetometria, HIDROGEOLOGIA
- 2005 - 2009** Mestrado em Geologia.
Universidade do Vale do Rio dos Sinos, UNISINOS, São Leopoldo, Brasil
Título: CARACTERIZAÇÃO ESTRATIGRÁFICA DO PREENCHIMENTO DO VALE INCISO DO BAIXO RIO DOCE DURANTE O PLEISTOCENO SUPERIOR-Holoceno, Ano de obtenção: 2009
Orientador: Ubiratan Ferruccio Faccini
Co-orientador: Paulo Sergios Gomes Paim
Palavras-chave: Quaternário, Vale Inciso, Estratigrafia de Sequências, GEOFÍSICA
Áreas do conhecimento: Geociências
Setores de atividade: Outros Setores
- 2012 - 2013** Especialização em Informações Espaciais Georreferenciadas.
Universidade do Vale do Rio dos Sinos, UNISINOS, São Leopoldo, Brasil
Título: Precisão das Coordenadas Levantadas Através de Diferentes Métodos e Equipamentos.
Orientador: Adriane Brill Thum
- 1997 - 2003** Graduação em Geologia.
Universidade do Vale do Rio dos Sinos, UNISINOS, São Leopoldo, Brasil
Título: Geologia de subsuperfície da Bacia Hidrográfica do Capané, Cachoeira do Sul-RS, Brasil
Orientador: Ubiratan F. Faccini

Formação complementar

- 2019 - 2019** Curso de curta duração em Geofísica Aplicada na Contaminação das Águas Subterrâneas. (Carga horária: 1h).
Oficina de Textos, OT, Brasil
Palavras-chave: GEOFÍSICA, Hidrogeologia
- 2018 - 2018** Curso de curta duração em Investigação Geológica-geotécnica para Obras de Infraestrutura. (Carga horária: 1h).
Oficina de Textos, OT, Brasil
Palavras-chave: Geotecnia
- 2017 - 2017** Curso de curta duração em Gamaespectrometria: Conceitos e aplicações na exploração mineral. (Carga horária: 5h).
Universidade Federal do Pampa, UNIPAMPA, Bage, Brasil
- 2015 - 2015** Curso de curta duração em The Dynamic Earth: A Course for Educators. (Carga horária: 32h).
American Museum of Natural History, AMNH, New York, Estados Unidos
- 2014 - 2014** Sensoriamento Remoto: Aprendizagem Continuada. . (Carga horária: 112h).
Instituto Nacional de Pesquisas Espaciais, INPE, Sao Jose Dos Campos, Brasil
- 2014 - 2014** Curso de curta duração em Geofísica Aplicada à Exploração Mineral. (Carga horária: 7h).
Sociedade Brasileira de Geofísica, SBGF, Rio De Janeiro, Brasil
- 2014 - 2014** Curso de curta duração em Formação Pedagógica. (Carga horária: 24h).
Universidade Federal do Pampa, UNIPAMPA, Bage, Brasil
- 2013 - 2013** Curso de curta duração em Produtos Google - Potencializando o uso de mapa. (Carga horária: 1h).
Mundogeo, MUNDOGEO, Brasil
Palavras-chave: Georreferenciamento
- 2012 - 2012** Curso de curta duração em GIS day: Conectados ao futuro através de Geocolabor. (Carga horária: 60h).
Mundogeo, MUNDOGEO, Brasil
Palavras-chave: Georreferenciamento
- 2012 - 2012** Curso de curta duração em Atualização em Topografia e Geodésia. (Carga horária: 6h).
Allcomp, ALLCOMP, Brasil
Palavras-chave: Georreferenciamento
- 2010 - 2010** Curso de curta duração em Geotecnologias para Desastres Naturais. (Carga horária: 16h).
Associação Brasileira de Engenharia Sanitaria e Ambiental, ABES, Rio De Janeiro, Brasil
- 2003 - 2003** Curso de curta duração em I Oficina: Gestão de Águas Subterrâneas.. (Carga horária: 8h).
Associação Brasileira de Águas Subterrâneas (RS), ABAS - RS, Brasil
Palavras-chave: Hidrogeologia
- 2000 - 2000** Extensão universitária em Técnicas e Procedimentos para o Trabalho com Fósse. (Carga horária: 16h).
Universidade do Vale do Rio dos Sinos, UNISINOS, Sao Leopoldo, Brasil
- 1995 - 1995** Curso de curta duração em Word for Windows. (Carga horária: 30h).
Serviço Nacional de Aprendizagem Comercial - RS, SENAC/RS, Porto Alegre, Brasil
Palavras-chave: Informática
- 1995 - 1995** Curso de curta duração em Excel. (Carga horária: 30h).
Serviço Nacional de Aprendizagem Comercial - RS, SENAC/RS, Porto Alegre, Brasil
Palavras-chave: Informática
- 1994 - 1994** Curso de curta duração em Windows. (Carga horária: 9h).

Serviço Nacional de Aprendizagem Comercial - RS, SENAC/RS, Porto Alegre, Brasil
Palavras-chave: Informática, Noções de windows e aplicativos, Gerenciador de programas e arquivos, Editor PIF

1994 - 1994 Curso de curta duração em Operador de Microcomputadores PC. (Carga horária: 45h).
Serviço Nacional de Aprendizagem Comercial - RS, SENAC/RS, Porto Alegre, Brasil
Palavras-chave: Informática, Sistema MS/DOS

1994 - 1994 Curso de curta duração em Microinformática - Iniciação a Área. (Carga horária: 15h).
Serviço Nacional de Aprendizagem Comercial - RS, SENAC/RS, Porto Alegre, Brasil
Palavras-chave: Informática

Atuação profissional

. **Geomap Geologia LTDA - GEOMAP**

2011 - 2013 Vínculo: Colaborador , Enquadramento funcional: Geólogo , Carga horária: 40, Regime: Geomap Geologia LTDA Integral

Outras informações:

#9679;Responsável por prestar assessoria e consultoria de licença ambiental para empresas de pequeno a grande porte relacionadas à mineração, realizando relatórios, laudos e pareceres geotécnicos;#9679;Responsável pela execução de laudos ambientais, para construção civil, identificando as áreas executáveis para os projetos;#9679;Execução da topografia identificando a morfologia do local;#9679;Realização de passivo ambiental em postos de combustível, com execução de relatórios e laudos para renovação das atividades exercidas, identificando o nível ou não de contaminação;#9679;Definição de áreas para locação de aterro sanitário com identificação das legislações ambientais;#9679;Organização de banco de dados geológicos e controle de qualidade;#9679;Vivência com contato em comunidades para permissão de trabalho em terras e propriedades.

. **Neocorp Desenvolvimento de Projetos LTDA - NEOCORP**

2008 - 2009 Vínculo: Celetista , Enquadramento funcional: Geólogo , Carga horária: 40, Regime: Neocorp Desenvolvimento de Projetos LTDA Integral

Outras informações:

#9679;Responsável por prestar assessoria e consultoria ambiental em geologia para empresas de pequeno a grande porte implementando e desenvolvendo métodos de geofísico de levantamento;#9679;Execução do processamento e análise de dados batimétricos para aquisição e tratamento dos dados;#9679;Realização de relatórios de Impacto Ambiental - EIA e RIMA, identificando e realizando a análise de contaminação de solo e água e estudo de locação para aterro sanitário;#9679;Estudo para detecção de contaminantes enterrados utilizando métodos de geofísica (GPR) com locação e coleta de água e solo para análise em laboratório;#9679;Estudo para locação de PCH (pequena central hidrelétrica).

. **Universidade do Vale do Rio dos Sinos - UNISINOS**

2005 - 2008 Vínculo: Outro (especifique) , Enquadramento funcional: Geólogo

Atividades

08/2000 - 12/2001 Pesquisa e Desenvolvimento, Centro de Ciências Exatas e Tecnológicas

*Linhas de pesquisa:
estratigrafia de sequencias*

. **Universidade Federal do Pampa - UNIPAMPA**

2013 - 2015 Vínculo: Contrato temporário , Enquadramento funcional: Professor Substituto de Magistério Superior , Carga horária: 40, Regime: Universidade Federal do Pampa Integral

Outras informações:

#9679;Responsável pela efetivação da proposta pedagógica ministrando aulas no curso de Geologia, Geofísica,

Tecnologia da Mineração e Engenharia Ambiental e Sanitária, facilitando o processo de aprendizagem e cumprindo de todo o programa da disciplina, o número de aulas previsto despertando o interesse permanente dos alunos para o estudo, a reflexão e a busca de novos conhecimentos; #9679;Foco em disciplinas de Sensoriamento Remoto, SIG/PDI, Topografia, Sistema Terra, Hidrogeologia, Geomorfologia, Climatologia e Hidrologia;#9679;Participação em banca de conclusão de curso, co-orientando e aprovando os trabalhos acadêmicos;#9679;Realização de publicações de artigos científicos, de acordo com diferentes projetos executados na linha acadêmica; #9679;Encouragement of students to use bibliographic materials related to the discipline, by consulting books and journals available in the library, contributing to a critical and reflective learning process#9679;Recording, through an electronic register, of attendance, lesson content, academic performance results, and other information related to curricular components within the timeframe defined by the academic calendar.

Atividades

11/2013 - 11/2015 Graduação, Geologia

Disciplinas ministradas:
Geomorfologia , Climatologia e Hidrologia , Hidrogeologia , Mapeamento Geológico IV , Sensoriamento Remoto , Sistema Terra , Sistemas de Informações Geográficas e Processamento Digital de Imagens (SIG PDI)

11/2013 - 11/2015 Graduação, Tecnologia em Mineração

Disciplinas ministradas:
Informática Básica , Sensoriamento Remoto

11/2013 - 11/2015 Graduação, Engenharia Sanitária e Ambiental

Disciplinas ministradas:
Climatologia e Hidrologia , Energias Alternativas , Sistemas de Informações Geográficas e processamento digital de Imagens (SIG PDI)

11/2013 - 11/2015 Graduação, Geofísica

Disciplinas ministradas:
Sistemas de Informações Geográficas e Processamento digital de Imagens (SIG PDI) , Cartografia , Sensoriamento Remoto

FTGEO CONSULTORIA - FTGEO

2013 - 2013 Vínculo: Consultor , Enquadramento funcional: Geólogo , Carga horária: 40, Regime: FTGEO CONSULTORIA Integral

Outras informações:

#9679;Responsável por prestar assessoria e consultoria ambiental em geologia para empresas de pequeno a grande porte para a soluções dentro de um amplo espectro de atividades relacionadas à geologia, meio ambiente e geoprocessamento;#9679;Execução de elaborar relatórios de Controle Ambiental e Plano de Controle Ambiental (RCA e PCA) e relatórios Anuais de Lavra (RAL);#9679;Análise geofísica por métodos eletrorresistividade, para identificação de fraturas para água subterrânea; #9679;Responsável pela outorga e locação de poços tubulares profundo;#9679;Realização de licenciamento ambiental, com análise de documentação legal ambiental, interpretação da legislação ambiental aplicável;#9679;Realização de laudo geológico e geotécnico, identificando as especificidades técnicas para liberação.

CONSULTORIA AUTÔNOMA AMBIENTAL EM GEOLOGIA - DGEO

2016 - Atual Vínculo: Proprietário , Enquadramento funcional: Geólogo , Carga horária: 40, Regime: CONSULTORIA AUTÔNOMA AMBIENTAL EM GEOLOGIA Integral

Outras informações:

#9679;Responsável por prestar consultoria de Geologia focado em Análise Ambiental, realizando o mapeamento geológico de terrenos, analisando os principais aspectos da topografia, análise de poços tubulares profundo para posterior execução de laudos, outorga e execução das atividades para empresas de pequeno a grande porte;#9679;Elaboração e identificação de propostas de

fornecimento de serviços em acordo com as especificidades das aplicações, preços, prazos e condições comerciais;#9679;Desenvolvimento de trabalho consultivo com implantação de relatórios, laudos e indicadores de acordo com o projeto executado;#9679;Realização de coleta e interpretação de dados geológicos identificando a estabilidade do solo para o gerenciamento de áreas contaminadas, visando a construção de estradas ou a probabilidade de deslizamentos de terra em local de escavações, entre outros;#9679;Responsável pelo monitoramento de amostras de água, efluente, solo atualizar as licenças ambientais e suas condicionantes junto a órgãos de fiscalização ambiental;#9679;Realização de análise de campo em vistoria para elaboração de relatório de levantamento de não-conformidades ambientais, reportando ao responsável pelo setor ambiental da empresa assessorada;#9679;Elaboração de relatórios como: EIA / RIMA Estudo de Impacto Ambiental / Relatório de Impacto, Ambiental, RAP Relatório Ambiental Preliminar, RAS Plano de Controle Ambiental e entre outros;#9679;Desenvolvimento e implantação de projetos que visam à diminuição do impacto sobre o meio ambiente;#9679;Análise de documentação legal ambiental e interpretação da legislação ambiental aplicável de acordo com os órgãos reguladores;#9679;Mapeamento para águas subterrâneas e contribuição no gerenciamento dos recursos hídricos;#9679;Investigação e identificação de como determinadas ações naturais e artificiais afetam um território;#9679;Responsável por detectar possíveis causas de esgotamento ou contam

Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq

1999 - 2000

Vínculo: Bolsista , Enquadramento funcional: Auxiliar de Pesquisa , Carga horária: 20, Regime: Conselho Nacional de Desenvolvimento Científico e Tecnológico Parcial

Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - CAPES

1998 - 1998

Vínculo: Bolsista , Enquadramento funcional: Auxiliar de Pesquisa (PET) , Carga horária: 20, Regime: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior Parcial

Linhas de pesquisa

1. estratigrafia de sequencias

Projetos

Projetos de pesquisa

2016 - 2018 Reconhecimento de Indicadores Prospectivos de Depósitos Minerais na região Centro-Sul do Rio Grande do Sul

Descrição: A prospecção mineral e a pesquisa geológica são as primeiras etapas do ciclo da mineração. A potencialidade mineral de uma nação depende de descobertas, avaliação e desenvolvimentos criteriosos em termos de depósitos minerais. O investimento financeiro, por vezes, de alto risco, se inicia na pesquisa mineral e não no desenvolvimento de um depósito mineral. Se o planejamento é construído de forma correta e aplicado com competência resultará na descoberta de depósitos minerais de interesse econômico. A região centro-sul do estado do Rio Grande do Sul hospeda depósitos de cobre, ouro, chumbo, zinco e prata de alto teor. Durante muitos anos foi considerada a capital brasileira da mineração, contudo a dificuldade de extração dos minérios existentes na região e a baixa do valor no mercado internacional a partir do século XX fizeram com que houvesse um grave desemprego e a migração de mão de obra para outros setores ou centros populacionais. Isto o torna uma área promissora para a aplicação de técnicas de Correlação Mineral-Guia e Minério. Diversos estudos têm sido citados na bibliografia científica relacionando tipo litológico, fluidos e mineralizações associadas, contudo muitos deles são fragmentados e restritos em escalas de trabalho o que impossibilita e dificulta o estudo prospectivo de um modo geral. Técnicas indiretas de investigação como o Sensoriamento Remoto através da análise e interpretação de imagens de satélite ou fotogramas aéreos e a Geofísica

terrestre e aérea serão empregadas. Por outro lado, a petrografia, tanto macroscópica quanto microscópica, aliada a petrologia fornece subsídios para a caracterização das principais litologias presentes na área de interesse. A geoquímica, sendo ela em rocha total, mineral ou isotópica, é uma ferramenta de grande utilidade para conhecimento sobre a composição química envolvida em cada um dos estágios relacionados aos diversos tipos de mineralizações da região. A associação dessas técnicas é aqui utilizada com vistas a obtenção de mais subsídio à geologia da região. Busca-se com isto respostas a processos geológicos que atuaram ao longo dos milhões de anos na área de estudo e a homogeneização dos dados de forma que possam ser utilizados por outros interessados como um guia prospectivo na busca de novos prospectos minerais. Os resultados obtidos, principalmente aqueles relacionados às mineralizações, podem fornecer indicativos para outras áreas próximas, principalmente aquelas ocorrências minerais relacionadas ao mesmo ambiente geológico ou formadas na mesma época geológica..

Situação: Concluído Natureza: Projetos de pesquisa

Alunos envolvidos: Graduação (10); Doutorado (1);

Integrantes: Rafael Lima Dessart; Cristiane Heredia Gomes (Responsável); José Pedro Rebés Lima; Juliana Gimenes de Oliveira; Maximilian Fries; José Waldomiro Jimenez Rojas; Marco Antonio Fontoura Hansen; Diogo Gabriel Sperandio; Natália Pinheiro Borges; Aline Silva Barbosa; Jorge Tomas Trovo Echague; Joao Pedro Santana; Guilherme Pazzinato; Ana Paula Tavares; Barbara Furlan; Daniel Antunes Coppi; barbara barrio caprara

2014 - 2016 Análises de metais alcalinos terrosos e outros metais na água, no solo e na atmosfera na região de Caçapava do Sul.

Descrição: O município de Caçapava do Sul é responsável por 80% da produção de calcário do estado do Rio Grande do Sul. O calcário é um produto mineral extraído de rochas sedimentares com quantidades acima de 30% de carbonato de cálcio. É utilizado principalmente na produção de cimento, cal e giz, fundente em metalurgia, fabricação de vidro, pedra ornamental, dentre outras utilidades. Tem larga utilização como correção do pH do solo para a agricultura. Com base nas idéias supracitadas, busca-se com essa proposta investigar a concentração de alguns metais alcalinos terrosos e outros metais na água, no solo e no ar na localidade das caieiras, no 1º distrito de Caçapava do Sul. Duas consequências ambientais que afetam a população, causadas pela mineração, são o ruído gerado pelas máquinas e os elevados níveis de poeira lançada no ar. Dependendo dos padrões de ventos ou da cobertura circundante, as partículas suspensas podem percorrer vários quilômetros para longe do local da mina, afetando a saúde dos residentes à jusante, principalmente daqueles que já sofrem de problemas pulmonares. Sabe-se que nas proximidades das mineradoras existem vários habitantes, o que nos motivou a pesquisar o efeito destes elementos na região. Até o momento dados sobre esse efeito são desconhecidos na literatura ou na forma de informações para a população em geral. Objetiva-se com isto analisar e quantificar os elementos químicos presente nas amostras de solo, água e ar coletados na região do 1º distrito de Caçapava do Sul, comparar os resultados com as normas de legislação ambiental da FEPAM, fazer um levantamento de dados através de pesquisas junto a comunidade local, além de contribuir para o entendimento sobre os efeitos que a extração de calcário pode gerar há população local.

Situação: Concluído Natureza: Projetos de pesquisa

Alunos envolvidos: Graduação (10);

Integrantes: Rafael Lima Dessart; Cristiane Heredia Gomes (Responsável); Leonardo da Rosa Silva; Stener C Oliveira; Cassia S Freitas; Guilherme Pacheco Casa Nova; Mayra Lopes; Anelise Marlene Schmidt; Juliana Gimenes de Oliveira; José Waldomiro Jimenez Rojas; Caroline Vivian Mendes; Amanda Mello da Silva Freire; Mab Raísa Corrêa Leão Silva; Ana Carolina Gonçalves Ceolin; Ícaro Macedo

Financiador(es): Universidade Federal do Pampa-UNIPAMPA

Número de produções C,T & A: 3/.

2014 - 2016 AVALIAÇÃO DE IMPACTO AMBIENTAL NAS ÁGUAS PROVENIENTES DE PROCESSOS DE LAVRAS DE CALCÁRIO EM CAÇAPAVA DO SUL

Descrição: Este projeto está vinculado a convênio firmado entre a UNIPAMPA e a empresa Dagoberto Barcellos S/A, através de projeto de pesquisa intitulado "Sistema de Gestão Ambiental

Aplicado à Indústria de Mineração de Calcário? e tem por objetivo a investigação de impacto ambiental das águas contidas nas cavas da mineradora, bem como nos sedimentos, nas águas dos arroios e águas subterrâneas através de análises físico-químicas e a ocorrência de metais através de análises por espectrofotometria. Atividades mineiras podem provocar a contaminação de rios e solos por metais e outros elementos durante e após a sua exploração. Por isso, a presença de alguns elementos, como metais pesados, representa para o ambiente problemas de contaminação, principalmente dos corpos hídricos. Quando alguns metais permanecem no solo, eles podem atacar fortemente a matéria orgânica e os minerais. Nas águas superficiais, os metais podem percorrer grandes distâncias, tanto de forma suspensa como partículas pequenas, ou na forma de íons livres. A região de Caçapava do Sul é bem conhecida pela mineração do calcário, onde existem mineradoras de importância comercial, e as minas, em sua maioria, são a céu aberto e, por este motivo, expostas às variações climáticas e atmosféricas. Junto a mineração de calcário há também a ocorrência de outros metais, o que contribui para sua inclusão nos resíduos dos respectivos processos de lavra. Estes metais podem ser arrastados pelas águas das chuvas ou ainda atingir o lençol freático, o que tem acontecido como resultado de lavras abandonadas. A grande preocupação é a contaminação deste lençol freático e o arraste de metais para os arroios que passam no interior de algumas mineradoras e que abastecem o consumo de água da cidade de Caçapava do Sul. As análises químicas deste projeto serão complementadas com estudo hidro geológico da região da mineradora com o objetivo de avaliar a interação entre as águas subterrâneas e as rochas.

Situação: Concluído Natureza: Projetos de pesquisa

Alunos envolvidos: Graduação (4);

Integrantes: Rafael Lima Dessart; Cristiane Heredia Gomes; Guilherme Pacheco Casa Nova; Anelise Marlene Schmidt (Responsável); Ana Paula Oliveira Mathias; Juliane Quintanilha; Juliano Fabris; Lucas Quaiati Vieira

Financiador(es): Dagoberto Barcellos S. A.-DB

2013 - 2014 Composição isotópica de Sr, Nd e Pb de basaltos alcalinos: uma contribuição a evolução magmática das Ilhas Flores, Corvo e Faial, Portugal.

Descrição: Este projeto consiste em estudar, do ponto de vista isotópico (Nd, Sr e Pb), os basaltos alcalinos de três diferentes ilhas do Arquipélago dos Açores: Flores, Corvo e Faial. Diversos estudos sobre a origem de basaltos de ilhas oceânicas têm mostrado uma influência de dois ou mais reservatórios mantélicos envolvidos no processo gerador destas ilhas. Isto devido à presença de composições isotópicas heterogêneas do manto. As ilhas Flores, Corvo e Faial, junto com outras seis ilhas, que compõem o Arquipélago de Açores são candidatas em potencial na contribuição acerca da fonte de basaltos alcalinos. Elas tem se mostrado um laboratório natural devido a sua localização geográfica e complexidade geológica. Localizadas no Oceano Atlântico, próximo a costa de Portugal, estão dispostas sobre a intersecção de duas placas oceânicas: Americana e Euroasiática, e sob a influência direta da Dorsal Meso Oceânica que separa as ilhas Flores e Corvo, a oeste, da ilha Faial, a leste. Além disso, a ilha do Faial junto com a ilha do Pico está disposta ao longo da falha Faial-Pico e, as ilhas Flores e Corvo no provável prolongamento da Falha Norte dos Açores, a mesma falha que concentra as ilhas da Terceira e São Miguel. A variação da composição química dos basaltos alcalinos é observada entre as ilhas açorianas e, também, em relação a Dorsal Meso Oceânica, onde nesta são encontrados basaltos toleíticos. O sistema isotópico apresenta sensível modificação entre uma ilha e outra, apesar de ser relativamente homogêneo. Este estudo provém uma contribuição ao entendimento da natureza e dinâmica do manto superior em função da composição isotópica de Sr, Nd e Pb dos basaltos alcalinos das ilhas Flores, Corvo e Faial. E nada melhor para entender a configuração do interior e do exterior da terra do que compreender o que acontece no recente. As ilhas Açorianas são um laboratório natural, com rochas jovens que podem auxiliar no estudo de rochas mais antigas em outras localidades do mundo.

Situação: Concluído Natureza: Projetos de pesquisa

Alunos envolvidos: Graduação (2);

Integrantes: Rafael Lima Dessart; Cristiane Heredia Gomes (Responsável); Adriane Machado; Guilherme Casanova; Farid Chemale Junior; Barbara Victória Reffatti Andrade; Felipe Augusto

2013 - 2014 Caracterização do comportamento químico de minerais do vulcão Villarrica, Chile.

Descrição: Este projeto consiste no estudo do magmatismo Pleistocênico e Holocênico evidenciado na sequência vulcânica do vulcão Villarrica, Chile, que como muitos vulcões ainda ativos representam exemplos didáticos. No conjunto obtido, serão utilizadas as técnicas de petrografia e imageamento eletrônico e geoquímica de minerais dos diferentes depósitos que compõem o vulcão Villarrica. Assim, pretende-se entender a relação e criar vínculos estreitos entre os aspectos composicionais, mineralógicos, texturais e estruturais de suas rochas constituintes e o ambiente de cristalização dos corpos ígneos. Além de colaborar com o acervo à pesquisa em projetos que englobem depósitos vulcânicos e sua correlação com as rochas semelhantes da região dos Pampas.

Situação: Concluído Natureza: Projetos de pesquisa

Alunos envolvidos: Graduação (1);

Integrantes: Rafael Lima Dessart; Cristiane Heredia Gomes (Responsável); Guilherme Casanova; Ariane Tamara dos Santos Duarte

2005 - 2008 Parametrização do baixo vale do rio Doce para modelagem estratigráfica

Descrição: A identificação de canyons associados a vales incisos, no Eoceno da Bacia de Santos, reacendeu o interesse na quantificação dos processos envolvidos na implantação e preenchimento de vales incisos. A região do Baixo Vale do Rio Doce já fora objeto de estudos da Petrobras na década de 70 devido ao desenvolvimento de uma extensa planície costeira e a existência em subsuperfície de depósitos fluviais e estuarinos preenchendo vales. Além dos vales incisos conterem importantes reservatórios, associados a suas fases de preenchimento, os mesmos representam importantes condutos de transferência de sedimentos continentais para áreas baciais, nesse caso associado às fases de incisão e formação de discordâncias. Assim é fundamental compreender as variações nas taxas de geração de espaço de acomodação e de aporte sedimentar, pois são esses fatores que controlam os episódios deposicionais e de transpasse de sedimentos. Estudos quantitativos destes processos são fundamentais para simulações numéricas de sedimentação baseadas em informações geológicas reais. A conjunção de dados acerca das variações temporais nas taxas de acumulação ou bypass de sedimentos com informações sobre volumes de sedimentos produzidos nas áreas fontes (tema fora do presente projeto) é de grande valia na formulação de predições quantitativas mais realísticas sobre a variação temporal no volume de sedimentos transferidos para regiões baciais. Além disso, a compreensão da arquitetura estratigráfica e deposicional gerada durante as fases de acumulação, e compartimentada por superfícies produzidas durante as fases de erosão e bypass, permite a definição das características do preenchimento do vale incisos em termos de distribuição espacial das fácies reservatórios e selantes. Assim, o projeto visa caracterizar a implantação, os episódios e as taxas de preenchimento do baixo vale do Rio Doce, a evolução do vale e da planície costeira e realizar sua modelagem geológica e sísmica...

Situação: Concluído Natureza: Projetos de pesquisa

Integrantes: Rafael Lima Dessart; FACCINI, U. F. (Responsável); PAIM, Paulo Sergio Gomes; ITAMAR IVO LEIPNITZ

1998 - 2005 Caracterização geológica de aquíferos porosos do Sistema Aquífero Guarani na faixa central do Rio Grande do Sul

Descrição: Este projeto tem como objetivo a aplicação e refinamento da metodologia de análise da geometria e das heterogeneidades de corpos sedimentares de origem continental, com vistas a produzir um estudo de caso sobre sua potencialidade para compreensão de sistemas aquíferos porosos, nas áreas de estudo. Tal metodologia, empregada com sucesso na indústria do petróleo, prevê a integração de informações adquiridas em diferentes escalas, incluindo dados diretos (mapeamento geológico, análise de afloramentos e amostras petrográficas) e indiretos (geofísica rasa, raios gama em afloramentos e poços), como forma de diferenciar associações de litofácies de maior e menor permeabilidade, contribuindo para o melhor aproveitamento e manejo dos aquíferos. Tendo como alvos preferenciais as regiões de maior densidade populacional da

Depressão Central do Estado (Santa Maria e Vale do Rio dos Sinos), e incluindo três teses de doutoramento (PPGEO-UNISINOS), este projeto visa detalhar a arquitetura estratigráfica de porções específicas do Aquífero Guarani, contribuindo para o esclarecimento de sua complexidade nas áreas de estudo. Com base na escolha de áreas e poços-tipo de cada situação geológica identificada, o projeto visa estabelecer critérios para definição de perímetros de proteção de poços em diferentes condicionamentos hidrogeológicos do Sistema Aquífero Guarani nas áreas alvo do estudo. O projeto constitui-se no prolongamento dos trabalhos desenvolvidos pelo projeto GEOARQ (PADCT/FINEP; 31.00.004/98-0) e no aprofundamento da referida abordagem metodológica para caracterização geológica e análise de corpos sedimentares portadores de água subterrânea.

Situação: Concluído Natureza: Projetos de pesquisa

Alunos envolvidos: Graduação (3); Doutorado (5);

Integrantes: Rafael Lima Dessart; FACCINI, U. F. (Responsável); PAIM, Paulo Sergio Gomes; Átila Augusto Stock da Rosa; Arnaldo Giardin; Osmar G. Wöhl Coelho ; Nuno Lamas Pimentel; Diego Erba; Fábio Wankler; Carlos Heine; José Luiz Flores Machado; Maria Carolina de Araújo Silva; Izamara Teca Cordeiro de Oliveira

Financiador(es): Companhia de Pesquisa de Recursos Minerais-CPRM, Companhia Riograndense de Saneamento-CORSAN, Conselho Nacional de Desenvolvimento Científico e Tecnológico-CNPq, Coordenação de Aperfeiçoamento de Pessoal de Nível Superior-CAPES, FUNDAÇÃO DE AMPARO A PESQUISA DO ESTADO DO RIO GRANDE DO SUL-FAPERGS, Universidade de Lisboa-UL, Universidade do Vale do Rio dos Sinos-UNISINOS, Universidade Federal de Roraima-UFRR, Universidade Federal de Santa Maria-UFSM

Projetos de desenvolvimento tecnológico

2018 - 2020 Implementação do Núcleo de Datação por Traços de Fissão NUDATF

Descrição: Esta proposta vai de encontro aos esforços científicos de estimular os pesquisadores da UNIPAMPA em aumentar o número de patentes, visando à produção de conhecimento que subsidie a elaboração, implementação e aperfeiçoamento de metodologias científicas voltadas aos problemas do Pampa Gaúcho. Desta forma, contribuindo para a elevação da qualidade dos estudos na UNIPAMPA e no Brasil. Esta proposta visa implementar e colocar em rotina o Núcleo de Datação por Traços de Fissão NUDATF na UNIPAMPA, que se destina a promover o desenvolvimento de explorações na linha de pesquisa denominada: Datação por Traços de Fissão em minerais de alta temperatura (quartzo, granada, epidoto, etc.), diferentemente do que os núcleos de outras universidades desenvolvem (apatita e zircão). Desta forma, será possível estudar a termocronologia, ou seja, a reconstrução da evolução Tempo-Temperatura das rochas da porção Centro-Sul do Escudo Sul-rio-grandense na região de Caçapava do Sul. Esta proposta de criação do NUDATF, para o estudo da datação por traços de fissão em quartzo, epidoto e granada e outros, do campus Caçapava do Sul, representa a oportunidade de dar continuidade e avançar no estudo que vem sendo desenvolvido pelo grupo. No sentido de induzir o processo de criação e fortalecimento de metodologia inovadora, redirecionando esforços para realização de pedido de patente junto ao NIT/UNIPAMPA. Desta forma, para facilitar a implantação e operacionalização de informações sistemáticas com recursos mínimos sobre eventos geológicos através de metodologias de Ciências, Tecnologia e Inovação. Utilizar-se de aperfeiçoamento metodológicos científico, que busquem ações teóricas e práticas é fundamental para a compreensão, facilitação da assimilação do conhecimento e formação de recursos humanos de alto nível e de excelência acadêmicos no nosso campus e na UNIPAMPA. A utilização de traços de fissão em minerais formados em temperaturas entre 300 e 1200°C visa conhecer as características térmicas das regiões onde esses minerais se formaram, sendo aplicado com sucesso no modelamento e na compreensão de ambientes afetados por soerguimento, erosão e desmoronamento. Para as aplicações em Inovação Tecnológica, o interesse principal é focado na observação da quantidade e tamanho dos traços de fissão na superfície dos minerais. Em geral, o quartzo, o epidoto e a granada contêm algumas partes por milhão de urânio como impureza. O isótopo mais abundante de urânio é o ²³⁸U e decai por fissão espontânea. Essa fissão produz um

desarranjo na estrutura cristalina dos minerais, formando regiões de instabilidade eletrônica denominada de traços espontâneos, liberando uma energia de ~ 210 MeV. Os traços espontâneos são continuamente produzidos ao longo do tempo, sendo estável a diferentes temperaturas. Contudo, é necessário se conhecer a quantidade de traços de fissão induzidos, aqueles oriundos da fissão do ²³⁵U. Quando o mineral é submetido a um ataque químico, os traços são aumentados a ponto de serem observados ao microscópio óptico. Neste sentido, o número de traços por unidade de área é uma função da idade do último evento térmico registrado na região em que estavam os minerais. Estes eventos podem ser movimentação de falhas, vulcanismo e metamorfismo. Assim como, o tamanho do traço de fissão é uma função da temperatura que a região apresentava no momento do evento geológico. Pode-se ainda, calcular as taxas de erosão ao longo do tempo a partir de uma combinação entre idade e tamanho dos traços. Os traços de fissão se formam progressivamente ao longo do tempo a uma taxa determinada apenas pela concentração de urânio nos minerais. Depois de sua formação, os traços de fissão progressivamente diminuem a uma taxa que depende principalmente da temperatura (Fleischer et al., 1975; Gleadow et al., 1986).

Situação: Concluído Natureza: Projetos de desenvolvimento tecnológico

Alunos envolvidos: Graduação (4);

Integrantes: Rafael Lima Dessart; Diogo Gabriel Sperandio; Natália Pinheiro Borges; GOMES, CRISTIANE HEREDIA (Responsável); Aline Silva Barbosa; Arthur Viçozzi; Guilherme Pazinato Dias

Projeto de extensão

2014 - Atual MUSEU VIRTUAL GEOLÓGICO DO PAMPA

Descrição: O presente projeto apresenta o Museu Virtual Geológico do Pampa, que disponibilizará através do site da UNIPAMPA-Campus Caçapava do Sul (<http://porteiros.unipampa.edu.br/cacapava/>), um conjunto de imagens referentes aos diferentes tipos litológicos de várias regiões do Brasil, Europa e América Central disponíveis no acervo da Universidade (Campus Caçapava do Sul) junto com informações detalhadas e disponíveis ao usuário. O Museu desenvolve um processo de análise e tratamento das imagens disponibilizadas tendo como alvo o uso da imagem como documento histórico portador informações que permitam a busca pelo conhecimento e compreensão teórico-didática aos discentes e docentes das comunidades externas e internas. O usuário será convidado a realizar um passeio virtual através de um ambiente de imagens e dados geológicos, químicos e paragéneses que ultrapassa o espaço físico da sala de aula.

Situação: Em andamento Natureza: Projeto de extensão

Alunos envolvidos: Graduação (5);

Integrantes: Rafael Lima Dessart; Cristiane Heredia Gomes (Responsável); Marco Antonio Fontoura Hansen; Dionatan Daniel Giusti; Diogo Gabriel Sperandio; Natália Pinheiro Borges; Catarine do Carmo; Caio Felipe Xavier

Financiador(es): Universidade Federal do Pampa-UNIPAMPA

2014 - Atual Geodiversidade: um conceito na prática - Novos Talentos em Ciências Exatas e da Terra

Descrição: Parte integrante do projeto maior, intitulado "Novo Talentos em Ciências Exatas e da Terra". Propiciar aos alunos e professores participantes a oportunidade de construir o conhecimento sobre a importância do estudo geológico e seus benefícios a partir de situações do cotidiano e coerentes com suas realidades. Assim, buscar formas de amenizar e/ou remediar através da conscientização e um equilíbrio entre o homem e o meio ambiente. De certa forma, toda prática científica reflete um momento histórico, e o cientista é inevitavelmente um ser, e um agente, social. Sabe-se que a Geodiversidade é o suporte para a vida na Terra e sua abrangência cria sinergias entre todas as ciências promovendo a contínua melhoria de vida das gerações futuras.

Situação: Em andamento Natureza: Projeto de extensão

Integrantes: Rafael Lima Dessart; Cristiane Heredia Gomes (Responsável)

Revisor de periódico

2025 - Atual	Journal of Applied Geophysics Outras informações: Revista científica internacional com foco em geofísica aplicada, métodos eletromagnéticos e hidrogeologia. Indexada em bases reconhecidas e com processo de revisão por pares. A publicação aborda temas como prospecção geofísica em ambientes complexos, inovação metodológica e integração de técnicas como TEFSM, AMT, TEM e MALM.
2017 - Atual	CREATIVE EDUCATION
2017 - Atual	REM - International Engineering Journal
2019 - 2019	11º Salão Internacional de Ensino, Pesquisa e Extensão - SIEPE
2018 - 2018	10 SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão
2017 - 2017	9 SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão
2016 - 2016	Anais do 8º SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão
2015 - 2015	Anais do VII SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão

Áreas de atuação

1. Grande área: Ciências Exatas e da Terra / Área: Geociências / Subárea: Geologia / Especialidade: Prospecção Mineral
2. Grande área: Ciências Exatas e da Terra / Área: Geociências / Subárea: Geologia / Especialidade: Geologia Ambiental
3. Grande área: Ciências Exatas e da Terra / Área: Geociências / Subárea: Geofísica / Especialidade: Geofísica Aplicada
4. Grande área: Ciências Exatas e da Terra / Área: Geociências
5. Grande área: Ciências Exatas e da Terra / Área: Geociências
6. Grande área: Ciências Exatas e da Terra / Área: Geociências

Produção

Produção bibliográfica

Artigos completos publicados em periódicos

1. **DESSART, RAFAEL LIMA**; LIMA, JACSON GOSMAN GOMES DE; PEREIRA, HENRIQUE GARCIA. PROSPECÇÃO DE ÁGUA SUBTERRÂNEA A PARTIR DA ANÁLISE ESTRUTURAL DO MUNICÍPIO DE BAGÉ, RS.. Boletim Goiano de Geografia. v.43, p.1 - 22, 2023.

Palavras-chave: análise estrutural, magens do Shuttle Radar Topography Missio, lineamentos positivos e negativos

2. **DESSART, RAFAEL LIMA**; REGINATO, PEDRO ANTONIO ROEHE; GALLAS, JOSÉ DOMINGOS FARACO. Uso de dados aeromagnéticos e eletromagnéticos na avaliação de estruturas condicionadoras de aquíferos fraturados e produtividade dos poços, no Sistema Aquífero Embasamento Cristalino, na região de

Bagé (RS). ÁGUAS SUBTERRÂNEAS. v.37, p.1 - 18, 2023.

Palavras-chave: Sistema Aquífero Cristalino, Aeromagnetometria, Compartimentação Estrutural, Hidrogeologia
Áreas do conhecimento: Aeromagnetometria, Hidrogeologia

3. **DESSART, R. L.**; REGINATO, P. A. R.; GOMES, C. H.; LIMA, J. G. G.. ANÁLISE DA COMPARTIMENTAÇÃO ESTRUTURAL DO SISTEMA AQUÍFERO EMBASAMENTO CRISTALINO NO MUNICÍPIO DE BAGÉ (RS) COM BASE NO USO DE LINEAMENTOS (SRTM E MAGNÉTICOS) E DE DADOS HIDROGEOLÓGICOS.. ÁGUAS SUBTERRÂNEAS. v.34, p.1 - 13, 2020.

Palavras-chave: Sistema Aquífero Cristalino, Aeromagnetometria, Compartimentação Estrutural, Hidrogeologia
Áreas do conhecimento: HIDROGEOLOGIA, Geofísica Aplicada, Aeromagnetometria

4. GOMES, CRISTIANE HEREDIA; **DESSART, R. L.**; SPERANDIO, DIOGO GABRIEL; BORGES, N. P.. ABORDAGEM DA GEOCIÊNCIAS NO ENSINO INFANTIL DE CAÇAPAVA DO SUL, RS: A FORM[AÇÃO] DOS VULCÕES.. ARETÉ (MANAUS). v.11, p.44 - 56, 2018.

5. GOMES, CRISTIANE HEREDIA; SPERANDIO, DIOGO GABRIEL; **DESSART, RAFAEL LIMA**; GIUSTI, DIONATAN DANIEL. Detection and Evaluation of metals in soil under influence of mining by Dispersive Energy X-ray Fluorescence Spectrometry (EDXRF), Lavras do Sul/RS. CIÊNCIA E NATURA. v.40, p.70, 2018.

6. GOMES, C. H.; SPERANDIO, D. G.; **DESSART, R. L.** Nuclídeos cosmogênicos: uma análise sobre um século de pesquisa em geociências. CREATIVE EDUCATION. v.09, p.932 - 941, 2018.

7. GOMES, CRISTIANE HEREDIA; SPERANDIO, DIOGO GABRIEL; **DESSART, RAFAEL LIMA**. Nuclídeos cosmogênicos: uma análise sobre um século de pesquisa em geociências. TERRAE DIDATICA (IMPRESSO). v.14, p.207 - 216, 2018.

8. GOMES, CRISTIANE HEREDIA; SPERANDIO, DIOGO GABRIEL; **DESSART, RAFAEL LIMA**. Remote Sensing analysis of the meanders migration in the Mamorecillo River between 1985 and 2012, Bolivia. INTERNATIONAL JOURNAL OF ADVANCED ENGINEERING RESEARCH AND SCIENCE. v.5, p.221 - 228, 2018.

9. GOMES, CRISTIANE HEREDIA; SCHMIDT, ANELISE MARLENE; **DESSART, RAFAEL LIMA**; CASA NOVA, GUILHERME PACHECO. Geochemical analyses of water and public health of the Mangueirão and Salso Streams in Caçapava do Sul, RS, Brazil. Revista Ambiente e Agua. v.12, p.760, 2017.

10. GOMES, C. H.; **DESSART, R. L.**; SPERANDIO, D. G.; OLIVEIRA, J. G.; BARROSO, I.; XAVIER, C. F.; CARMO, C.. Praticando Saberes e Construindo Idéias em Geociências. Revista Conexão UEPG. v.13, p.106, 2017.

11. GOMES, CRISTIANE HEREDIA; **DESSART, RAFAEL LIMA**; BARROSO, ISSACAR; CEOLIN, ANA CAROLINA GONÇALVES. The Contributions of the Monitoring: Program to the Education in Geoscience and in the Monitor's Academic Formation. Creative Education. v.07, p.2721 - 2732, 2016.

Livros publicados

1. **DESSART, R. L.** Knowledge Integration: A Multidisciplinary Approach to Science, ed.1. São José dos Pinhais: Seven, 2025, v.1.

Palavras-chave: Knowledge Integration, Artificial Intelligence (AI), Multidisciplinary Research, Scientific Innovation, Global Challenges

2. **DESSART, R. L.** Acurácia das Coordenadas Levantadas Através de Diferentes Métodos e Equipamentos., ed.1. , 2018, v.1., p.41.

3. GOMES, C. H.; **DESSART, R. L.**; SPERANDIO, D. G.; BORGES, N. P.. Geologia do Pampa em Fotografia: A Geodiversidade do Pampa Gaúcho, ed.1. , 2017, v.1., p.58.

Áreas do conhecimento: Geologia Regional

Setores de atividade: Pesquisa e desenvolvimento científico

Capítulos de livros publicados

1. LIMA, J. G. G.; PONTELLI, M. E.; MATOS, A. C. L. S.; **DESSART, R. L.** Compartimentação Geomorfológica no Setor Central do Planalto das Araucárias: Correção entre Litologia, Estrutural, Rugosidade, Declividade e Curvatura do Terreno In: Dinâmica Natural, Preservação e Utilização do Meio Ambiente, ed.1. Curitiba: Appris, 2023, p. 1 - 229.

Palavras-chave: Litologia, Estrutural, Rugosidade, Declividade, Curvatura do Terreno

Livros organizados

1. GOMES, C. H.; **DESSART, R. L.**; JUNGES, K.; SPERANDIO, D. G.; KEMERICH, P. D. C.. CONCENTRAÇÕES DE NITRATO EM ÁGUAS SUPERFICIAIS E SUBTERRÂNEAS EM ÁREA DE ATIVIDADE MINEIRA NO MUNICÍPIO DE CAÇAPAVA DO SUL, RS, BRASIL, ed.1. Ponta Grossa: Atena Editora, 2018, p.118.

Palavras-chave: Qualidade da água, Mineração, Metahemoglobinemia, Water quality, Mining, Methemoglobinemia

Trabalhos publicados em anais de eventos (completo)

1. BARBOSA, A. S.; **DESSART, R. L.**; GOMES, C. H.; BORGES, N. P.; SPERANDIO, D. G.. As Geociências e a Extensão: Alinhando Comunidade e Universidade In: 10 SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão, 2018, Santana do Livramento. **Anais do 10 SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão**2018,
2. BORGES, N. P.; SPERANDIO, D. G.; GOMES, CRISTIANE HEREDIA; **DESSART, R. L.** Geociências e Robótica: Ensinando os Sistemas Vulcânicos para Crianças. In: X Simposio Sul Brasileiro de Geologia, 2017, Curitiba. **Anais do X Simposio Sul Brasileiro de Geologia**2017,
3. BORGES, N. P.; SPERANDIO, D. G.; GOMES, CRISTIANE HEREDIA; **DESSART, R. L.** O Uso de Sensoriamento Remoto Para Detectar e Monitorar a Migração de Meandros no Rio Mamorecillo, Bolívia, Entre 1985 e 2012 In: X Simpósio Sul Brasileiro de Geologia, 2017, Curitiba. **Anais do X Simpósio Sul Brasileiro de Geologia**2017,
4. OLIVEIRA, J. G.; DESSART, R. L.; BARROSO, I.; GOMES, C. H.. Análise Física de Sedimentos Depositados em dois Recursos Hídricos da Cidade de Caçapava do Sul In: VII SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão, 2015, Alegrete. **Anais do VII SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão**Alegrete: 2015, v.Unico,

Trabalhos publicados em anais de eventos (resumo)

1. GOMES, C. H.; SPERANDIO, D. G.; DIAS, G. P.; VICOZZI, A.; **DESSART, R. L.** New insights into the track etching in olivine crystals from Azores, Pt In: 36th IGC, 2020, Nova Deli. **Anais do 36th IGC, 2020**.2020, v.1,
2. SPERANDIO, D. G.; GOMES, C. H.; **DESSART, R. L.** Avaliação Geoquímica do Solo do Cemitério Municipal de Mata por Fluorescência de Raio-X In: 32 Jornada Acadêmica Integrada, 2017, Santa Maria. **Anais 32 Jornada Acadêmica Integrada**2017,
3. SPERANDIO, D. G.; BARBOSA, A. S.; BORGES, N. P.; **DESSART, R. L.**; GOMES, C. H.. Ensino em Geociências Através da Extensão: Ações de Ensino Voltadas para Geologia do Pampa Gaúcho In: 32 Jornada Acadêmica Integrada, 2017, Santa Maria. **Anais 32 Jornada Acadêmica Integrada**2017,
4. SILVA, L. R.; GOMES, C. H.; DESSART, R. L.; OLIVEIRA, S. C.. Análise Química da Qualidade das Águas em Região de Mineração de Calcário In: VII SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão, 2015, Alegrete. **Anais do VII SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão**Alegrete: 2015, v.Unico,
5. BERALDO, D. E.; GOMES, C. H.; **DESSART, R. L.** Método Geofísico Eletroresistividade como Ferramenta de Análise Estrutural In: VII SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão, 2015, Alegrete. **Anais do VII SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão**Alegrete: 2015, v.Unico,

6. SILVA, L. R.; OLIVEIRA, S. C.; FREITAS, C. S.; MENDES, C. V.; DESSART, R. L.; GOMES, C. H.. ANÁLISE DE METAIS ALCALINOS TERROSOS NA ÁGUA EM CAÇAPAVA DO SUL-RS In: VI SIEPE- Salão Internacional de Ensino, Pesquisa e Extensão, 2014, Bagé. **Anais do VI SIEPE- Salão Internacional de Ensino, Pesquisa e Extensão**2014, v.6,

7. FACCINI, U. F.; Garcia, A.J.V.; Lavina, E.L.; Paim, P.S.G.; DESSART, R. L.; Pagano, C.G.; Goulart, G.. Coastal to Shallow analogue model for gas reservoir in the Paraná basin (Southern Brazil) draw out from surface and shallow subsurface data. In: XXXI International Geological Congress, 2000, Rio de Janeiro. **Anais do Congresso Internacional de Geologia**2000,

Trabalhos publicados em anais de eventos (resumo expandido)

1. **DESSART, R. L.**; GOMES, C. H.; LIMA, J. G. G.. ANÁLISE DA COMPARTIMENTAÇÃO ESTRUTURAL DO SISTEMA AQUIFERO EMBASAMENTO CRISTALINO NO MUNICÍPIO DE BAGÉ (RS) COM BASE NO USO DE DADOS AEROMAGNÉTICOS E GEOLÓGICOS. In: IX Congresso Uruguaio de Geologia, 2019, Trinidad. **IX Congresso Uruguaio de Geologia**2019, v.1, p.144 - 148

Palavras-chave: Sistema Aquífero Cristalino, Aeromagnetometria, Compartimentação Estrutural, Hidrogeologia

Áreas do conhecimento: HIDROGEOLOGIA, Geofísica, Aeromagnetometria

2. JUNGES, K.; GOMES, C. H.; SPERANDIO, D. G.; **DESSART, R. L.**; BORGES, N. P.; BARBOSA, A. S.. Análise das Concentrações de Nitrato em Águas Superficiais e Subterrâneas em Área de Atividade Mineira em Caçapava do Sul - RS In: XVI Congresso Brasileiro de Geoquímica, 2017, Armacao do Buzios. **Anais XVI Congresso Brasileiro de Geoquímica**2017,

3. BORGES, N. P.; SPERANDIO, D. G.; GOMES, C. H.; **DESSART, R. L.** Geociências e Robotica: Ensinando os Sistemas Vulcânicos para Crianças In: X Simposio Sul-Brasileiro de Geologia, 2017, Curitiba. **Anais do X Simposio Sul-Brasileiro de Geologia**2017,

4. BARBOSA, A. S.; SPERANDIO, D. G.; BORGES, N. P.; GOMES, C. H.; **DESSART, R. L.** Geoconservação e Ensino do Patrimônio Geológico do Escudo Sul-Rio-Grandense através do Museu Virtual Geológico do Pampa In: IV Simposio Brasileiro de Patrimonio Geologico e II Encontro Luso-Brasileiro de Patrimonio Geomorfologico e Geoconservacao., 2017, Ponta Grossa. **Anais do IV Simpósio Brasileiro de Patrimônio Geológico e II Encontro Luso-Brasileiro de Patrimonio Geomorfologico e Geoconservacao**.2017,

5. GOMES, C. H.; **DESSART, R. L.**; SPERANDIO, D. G.; BARBOSA, A. S.. Geoquímica de Sedimentos de Corrente da Confluência das Bacias Hidrográficas: Bacia Jacuí e Vacacaí-Mirim, como Ferramenta de Planejamento Ambiental, RS, Brasil In: XVI Congresso Brasileiro de Geoquímica, 2017, Armacao do Buzios. **Anais do XVI Congresso Brasileiro de Geoquímica**2017,

6. BARBOSA, I.; OLIVEIRA, J. G.; GOMES, C. H.; **DESSART, R. L.** Geoquímica Preliminar de Águas Superficiais do Município de Caçapava do Sul, RS, Brasil In: XV Congresso da Associação Brasileira de Estudos do Quaternário - ABEQUA, 2015, Tramandaí. **Anais do XV Congresso da Associação Brasileira de Estudos do Quaternário - ABEQUA**2015, v.1,

Apresentação de trabalho e palestra

1. **DESSART, R. L.**; GOMES, C. H.. Análise da Compartimentação Estrutural do Sistema Aquífero Embasamento Cristalino no Município de Bagé (RS) Com Base no Uso de Dados Aeromagnéticos e Geológicos, 2019. (Congresso, Apresentação de Trabalho)

Palavras-chave: Sistema Aquífero Cristalino, Aeromagnetometria, Compartimentação Estrutural, Hidrogeologia

Áreas do conhecimento: Hidrogeologia, Geofísica

2. **DESSART, R. L.** Integração de Dados Geofísicos e Estruturais na Investigação Hidrogeológica no município de Bagé/RS, 2017. (Seminário, Apresentação de Trabalho)

3. GOMES, C. H.; **DESSART, R. L.** Construindo um vulcão, 2015. (Comunicação, Apresentação de Trabalho)

Outras produções bibliográficas

1. **DESSART, R. L.** Precisão das Coordenadas Levantadas Através de Diferentes Métodos e Equipamentos. Pós-Graduação - Especialização. , 2013. (Outra produção bibliográfica)
2. **DESSART, R. L.** Caracterização Estratigráfica do Preenchimento do Vale Inciso do Baixo Rio Doce durante o Plesistoceno Superior-Holoceno. Dissertação. , 2009. (Outra produção bibliográfica)
3. **DESSART, R. L.** Geologia de Subsuperfície e Considerações Hidrogeológicas Preliminares da área da Bacia Hidrográfica do Arroio Capané, Cachoeira do Sul - RS, Brasil. Trabalho de Graduação. , 2003. (Outra produção bibliográfica)

Produção técnica Trabalhos técnicos

1. **DESSART, R. L.**; ALMEIDA, T.. Parque Eólico de Colhilha Negra, 2023

Palavras-chave: Geotecnia

Áreas do conhecimento: GEOTECNIA

Redes sociais, websites, blogs

1. GOMES, C. H.; **DESSART, R. L.**; HANSEN, M. A. F.; SPERANDIO, D. G.; XAVIER, C. F.; CARMO, C.; BORGES, N. P.; VICOZZI, A.; DIAS, G. P.; PAIXAO, G. M. X.. MUSEU VIRTUAL GEOLÓGICO DO PAMPA., 2016

Demais produções técnicas

1. FACCINI, U. F.; Paim, P.S.G.; **DESSART, R. L.**; ITAMAR IVO LEIPNITZ. Parametrização do baixo vale do rio Doce para modelagem estratigráfica., 2008. (Relatório de pesquisa)
2. **DESSART, R. L.** Geologia para Biólogos - Métodos de Campo., 1999. (Extensão, Curso de curta duração ministrado)

Orientações e Supervisões

Orientações e supervisões

Orientações e supervisões concluídas

Trabalhos de conclusão de curso de graduação

1. Douglas Beraldo. **Levantamento de Eletrorresistividade em Cava de Mineração Para detecção de Fraturas e Delimitação de Pluma de Contaminação.** 2015. Curso (Geologia) - Universidade Federal do Pampa

Iniciação científica

1. Caleb de Souza Ribeiro. **Monitoria Voluntária de Geomorfologia para a Geologia.** 2015. Iniciação

científica (Geologia) - Universidade Federal do Pampa

2. Neymer Wesclay Oliveira Guimarães. **Monitoria Voluntária de Mapeamento Geológico IV**. 2015. Iniciação científica (Geologia) - Universidade Federal do Pampa

3. Victor Hugo Braga. **Monitoria Voluntária de Topografia para o Curso de Geologia**. 2015. Iniciação científica (Engenharia Ambiental e Sanitária) - Universidade Federal do Pampa

4. Bruna Antunes de Oliveira. **Monitoria Voluntária de Topografia para o Curso de Geologia**. 2015. Iniciação científica (Engenharia Ambiental e Sanitária) - Universidade Federal do Pampa

5. Magson Aguires Lorenzi. **Monitoria Voluntária de Sensoriamento Remoto**. 2014. Iniciação científica (Geologia) - Universidade Federal do Pampa

6. Tatiana Moraes Alves. **Monitoria Voluntária de Sistema Terra**. 2014. Iniciação científica (Geologia) - Universidade Federal do Pampa

7. Bruno Nunes Machado. **Monitoria Voluntária de Sistema Terra**. 2014. Iniciação científica (Geologia) - Universidade Federal do Pampa

Eventos

Eventos

Participação em eventos

1. Apresentação de Poster / Paineis no(a) **IX Congresso Uruguaio de Geologia**, 2019. (Congresso) ANÁLISE DA COMPARTIMENTAÇÃO ESTRUTURAL DO SISTEMA AQUIFERO EMBASAMENTO CRISTALINO NO MUNICÍPIO DE BAGÉ (RS) COM BASE NO USO DE DADOS AEROMAGNÉTICOS E GEOLÓGICOS..

2. **1 Workshop de Exploração Mineral**, 2017. (Outra) .

3. **20 Seminário do Programa de Pós-graduação em Geologia da UFPR**, 2017. (Simpósio) Integração de dados geofísicos e estruturais na investigação hidrogeológica no município de Bagé/RS.

4. **Ciclo de Palestras da V Semana Acadêmica de Geofísica**, 2014. (Encontro) .

5. **V Semana Acadêmica de Geofísica**, 2014. (Encontro) .

6. **X Congresso da ABEQUA**, 2005. (Congresso) .

7. **IX Semana Interamericana e II Semana Estadual da Água**, 2002. (Seminário) .

8. **II Seminário Internacional sobre Agroecologia, III Seminário Estadual sobre Agroecologia e III Encontro Nacional sobre Pesquisa em Agroecologia**, 2001. (Seminário) .

9. **VIII Reunião Acadêmica da Biologia da UNISINOS - RABU**, 2001. (Encontro) .

10. **XIV Semana Nacional de Oceanografia**, 2001. (Encontro) .

11. **9 SIEPE - Salão Internacional de Ensino, Pesquisa e Extensão**, 2000. (Simpósio) .

12. **51 Reunião Anual da Sociedade Brasileira para o Progresso da Ciência**, 1999. (Encontro) .

13. **I Simpósio sobre Vulcanismo e Ambientes Associados**, 1999. (Simpósio) .

14. **XL Congresso Brasileiro de Geologia**, 1998. (Congresso) .

Bancas

Bancas

Participação em banca de trabalhos de conclusão

Graduação

1. GOMES, C. H.; **DESSART, R. L.**; CLEMENTE, I. M.. Participação em banca de Jéssica Godoy Pinto. **Utilização de Aerogeofísica para Correlação Geologia no Município de Sao Sepe-RS**, 2017. (Geologia) Universidade Federal do Pampa.
2. GOMES, C. H.; **DESSART, R. L.**; KEMERICH, P. D. C.. Participação em banca de KARINE GOMES JUNGES. **ANÁLISE DE CONCENTRAÇÕES DE NITRATO EM ÁGUAS SUPERFICIAIS E SUBTERRÂNEAS EM CAÇAPAVA DO SUL - RS**, 2016. (Geologia) Universidade Federal do Pampa.
3. ROJAS, J. W. J.; **DESSART, R. L.**; GOMES, C. H.. Participação em banca de DÉBORA CAROLINE PERTILLI. **ESTUDO AMBIENTAL DA ESTRADA VICINAL ENTRE O MUNICÍPIO DE CAÇAPAVA DO SUL E A CASCATA DO SALSO**, 2016. (Engenharia Ambiental e Sanitária) Universidade Federal do Pampa.
4. SANTOS-MATOS, A. C. L.; **DESSART, R. L.**; CASANOVA, G.. Participação em banca de PÂMELA NATHALIA GERMANO TELLES. **MAPEAMENTO HIDROGEOQUÍMICO DO MUNICÍPIO DE CAÇAPAVA DO SUL, RS**, 2016. (Geologia) Universidade Federal do Pampa.
5. FRIES, M.; **DESSART, R. L.**; ALBARNAZ, L. D.. Participação em banca de GLEICE CUNHA DE AQUINO. **USO DA GEOFÍSICA NA DETECÇÃO E CARACTERIZAÇÃO DE UM AQUÍFERO FRATURADO – CAÇAPAVA DO SUL/RS**, 2016. (Geologia) Universidade Federal do Pampa.
6. FRIES, M.; **DESSART, R. L.**; ALBARNAZ, L. D.. Participação em banca de GLEICE CUNHA DE AQUINO. **USO DA GEOFÍSICA NA DETECÇÃO E CARACTERIZAÇÃO DE UM AQUÍFERO FRATURADO – CAÇAPAVA DO SUL/RS**, 2016. (Geologia) Universidade Federal do Pampa.
7. GOMES, C. H.; **DESSART, R. L.**; ROJAS, J. W. J.. Participação em banca de JÉSSICA GODOY PINTO. **UTILIZAÇÃO DE AEROGEOFÍSICA PARA CORRELAÇÃO GEOLOGICA E GEOFÍSICA NO MUNICÍPIO DE SÃO SEPÉ-RS**, 2016. (Geologia) Universidade Federal do Pampa.
8. FRIES, M.; **DESSART, R. L.**; LIMA, J. P. R.. Participação em banca de Dayvson Cerqueira Carvalho. **APLICAÇÃO DO MÉTODO DA ELETORRESISTIVIDADE NA CARACTERIZAÇÃO DE UM AQUÍFERO FRATURADO - CAÇAPAVA DO SUL/RS.**, 2015. (Geofísica) Universidade Federal do Pampa.
9. ROJAS, J. W. J.; **DESSART, R. L.**; LOPES, V. G.. Participação em banca de Anna Maria de Carvalho Lucas. **ESTUDO GEOFÍSICO E GEOTÉCNICO EM UMA ÁREA DE RISCO NO MUNICÍPIO DE CAÇAPAVA DO SUL, RS**, 2015. (Geologia) Universidade Federal do Pampa.
10. FRIES, M.; **DESSART, R. L.**; LIMA, J. P. R.. Participação em banca de Monique Barcelos Moreira. **ESTUDO MAGNETOMÉTRICO DE DETALHE NA IDENTIFICAÇÃO E CARACTERIZAÇÃO DE DESCONTINUIDADES ROCHOSAS COMO SUBSÍDIO NA IDENTIFICAÇÃO DE UM AQUÍFERO.**, 2015. (Fisioterapia) Universidade Federal do Pampa.
11. HANSEN, M. A. F.; **DESSART, R. L.**; ALBARNAZ, L. D.. Participação em banca de Lucas Quaiatti Vieira. **Geologia e Geofísica de Ambiente Mineralizado com Ouro**, 2015. (Geologia) Universidade Federal do Pampa.
12. **DESSART, R. L.**; GOMES, C. H.; FRIES, M.. Participação em banca de Pâmela Nathalia Germano Telles. **MAPEAMENTO HIDROGEOQUÍMICO DO MUNICÍPIO DE CAÇAPAVA DO SUL, RS**, 2015.

(Geologia) Universidade Federal do Pampa.

13. FRIGO, E.; LIMA, J. P. R.; **DESSART, R. L.** Participação em banca de Karolliny Borssatto. **Modelos Geomagnéticos realizados no Estado do Rio Grande do Sul.**, 2015. (Geofísica) Universidade Federal do Pampa.

14. DESSART, R. L.; GOMES, C. H.; FRIES, M.. Participação em banca de André Gaino. **Patologia de poços tubulares: método de perfilagem óptica como ferramenta de análise em poços da cidade de Santana do Livramento- RS**, 2015. (Geologia) Universidade Federal do Pampa.

Exhibit B: Eligibility Criteria - Advanced Degree



Federative Republic of Brazil
Ministry of Education
FEDERAL UNIVERSITY OF RIO GRANDE DO SUL

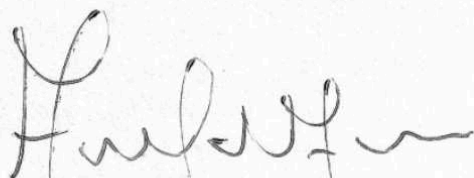


The President of the Federal University of Rio Grande do Sul, in the exercise of his duties, and given the completion of the doctoral program of the Graduate Studies Program in Water Resources and Environmental Sanitation, of the Hydraulic Research Institute, on March 14, 2022, hereby confers the title of

Doctor in Water Resources and Environmental Sanitation

to
to
Rafael Lima Dessart

Brazilian, born on August 20, 1975, in Porto Alegre, RS, and grants him this diploma so that he may enjoy all legal rights and prerogatives.


Joel Avruch Goldenfum
Director

Porto Alegre, November 30, 2022

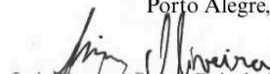
Graduate


Carlos Andre Bulhoes Mendes
President

**FEDERAL UNIVERSITY OF RIO GRANDE DO SUL
VICE-PRESIDENT'S OFFICE OF GRADUATE STUDIES**

Program recognized by Ordinance No. 609 of the Minister of State for Education, dated 03/14/2019, published in the Federal Official Gazette No. 52, on 03/18/2019, Section 1, p. 63. Diploma registered under No. 0163, page 028, of Book PG 52, following Article 48, §1 of Law No. 9394 of December 20, 1996.

Porto Alegre, November 30, 2022


Luiz Gustavo Santos Reis de Oliveira
Administrative Assistant
Division of Graduate Studies
Diplomas and Certificates


Julio Otavio Jardim Barcellos
Vice-President's Office of Graduate Studies

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: July 01, 2025.



República Federativa do Brasil
Ministério da Educação
UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL



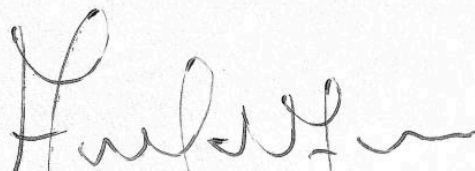
O Reitor da Universidade Federal do Rio Grande do Sul, no uso de suas atribuições, tendo em vista a conclusão do curso de doutorado do Programa de Pós-Graduação em Recursos Hídricos e Saneamento Ambiental, do Instituto de Pesquisas Hidráulicas, em 14 de março de 2022, confere o título de

Doutor em Recursos Hídricos e Saneamento Ambiental

a
a
Rafael Lima Dessart

nacionalidade brasileira, nascido a 20 de agosto de 1975, em Porto Alegre, RS, e outorga-lhe o presente diploma a fim de que possa gozar de todos os direitos e prerrogativas legais.

Porto Alegre, 30 de novembro de 2022.


Joel Avruch Goldenfum
Diretor

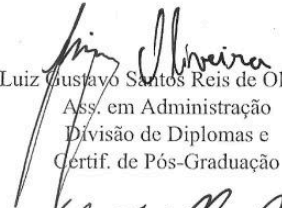
Diplomado


Carlos Andre Bulhoes Mendes
Reitor

**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL
PRÓ-REITORIA DE PÓS-GRADUAÇÃO**

Curso reconhecido pela Portaria nº 609, do Ministro de Estado da Educação, de 14/03/2019, publicada no D.O.U. nº 52, de 18/03/2019, Seção 1, p. 63. Diploma registrado sob o nº. 0163, fls. 028, do Livro PG 52, de acordo com artigo 48, parágrafo 1º, da Lei 9394, de 20 de dezembro de 1996.

Porto Alegre, 30 de novembro de 2022.


Luiz Gustavo Santos Reis de Oliveira
Ass. em Administração
Divisão de Diplomas e
Certif. de Pós-Graduação


Julio Otavio Jardim Barcellos
Pró-Reitor de Pós-Graduação



MINISTRY OF EDUCATION
EARTH SCIENCES DEPARTMENT
FEDERAL UNIVERSITY OF PARANÁ
VICE-PRESIDENT'S OFFICE FOR GRADUATE STUDIES
GRADUATE PROGRAM IN GEOLOGY – 40001016028P5

Name: Rafael Lima Dessart		Document: 69222576004
Date of Birth: 08/20/1975	Sex: Male	Place of Birth: Porto Alegre/RS
Parents: JORGE GERAL JAYME DESSART and SANDRA LIMA		

Program: Doctorate in GEOLOGY	Enrollment Date: 05/04/2017	Date of Withdrawal: 08/31/2018
Program recognized by CNE/CES Opinion No. 288/2015 – MEC Ordinance No. 656, published in the Federal Official Gazette on 07/27/2017		
Area of Concentration: ENVIRONMENTAL GEOLOGY		Research Focus: Water Resources
Foreign Language:		
Advisor: FRANCISCO JOSÉ FONSECA FERREIRA and Co-Advisor: CRISTIANE HEREDIA GOMES		
Dissertation Title:		

ACADEMIC TRANSCRIPT

Issue Date: 06/25/2025

Code	Course	WL/CR	Grade	ATT. (%)	Term/Year	Professor
Electives						
GEO-74	SPECIAL TOPICS IN GEOLOGY II – Semi-Quantitative Methods for Magnetic Data	60/4	9.0 / A	8	2nd Semester / 2017	Saulo Pomponet Oliveira
GEOL-7043	HYDROGEOLOGICAL SYSTEMS – A	60/4	9.0 / A	100	1st Semester / 2018	Ernani Francisco da Rosa Filho
GEOL-7033	PROCESSING AND INTERPRETATION OF AEROGEOLOGICAL DATA – A	60/4	9.0 / A	75	1st Semester / 2018	Francisco José Fonseca Ferreira
Credit Validations						
Code	Course	WL/CR	Grade	ATT. (%)	Credit Type	Year – Institution
*	HYDROGEOLOGY OF FRACTURED AQUIFERS	30/2	A	100	Elective (Credit Transfer)	2018 – UFRGS
*	APPLIED TOPOGRAPHY FOR GEOREFERENCING	75/5	A	100	Elective (Credit Transfer)	2018 – UNISINOS
*	GEODETIC REFERENCE SYSTEMS	30/2	A	100	Elective (Credit Transfer)	2018 – UNISINOS
*	METHODS AND MEASUREMENTS OF GEODETIC POSITIONING	75/5	A	100	Elective (Credit Transfer)	2018 – UNISINOS
*	DIGITAL CARTOGRAPHY AND DATA FOR GIS	45/3	A	100	Elective (Credit Transfer)	2018 – UNISINOS
*	CARTOGRAPHIC PROJECTIONS	45/3	A	100	Elective (Credit Transfer)	2018 – UNISINOS
Required/Completed Credits for Degree: Mandatory: 4/0 Elective: 32/32 Total: 36/32						

Resolution no. 32/17 CEPE - Grading Scale A = Excellent (9.0 to 10.0) B = Very Good (8.0 to 8.9) C = Good (7.0 to 7.9) D = Insufficient (0.0 to 6.9)

WL - workload, CR - Credit, ATT. - Attendance

Carolina Danielski Aquino
Coordination of the Graduate Studies Program in
GEOLOGY

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: July 01, 2025.



MINISTÉRIO DA EDUCAÇÃO
SETOR DE CIÊNCIAS DA TERRA
UNIVERSIDADE FEDERAL DO PARANÁ
PRÓ-REITORIA DE PÓS-GRADUAÇÃO
PROGRAMA DE PÓS-GRADUAÇÃO GEOLOGIA -
40001016028P5

Nome: RAFAEL LIMA DESSART			Documento: 69222576004
Data de Nascimento: 20/08/1975	Sexo: Masculino	Naturalidade: Porto Alegre/RS	
Filiação: JORGE GERAL JAYME DESSART e SANDRA LIMA			

Curso: Doutorado em GEOLOGIA	Data de Matrícula: 04/05/2017	Data de Desligamento: 31/08/2018
Curso Reconhecido pelo Parecer nº 288/2015 CNE/CES - Portaria MEC 656, D.O.U de 27/07/2017		
Área de Concentração: GEOLOGIA AMBIENTAL	Linha de Pesquisa: Recursos Hídricos	
Língua Estrangeira:		
Orientador: FRANCISCO JOSÉ FONSECA FERREIRA Co-Orientador: CRISTIANE HEREDIA GOMES		
Título da tese:		

HISTÓRICO ESCOLAR

Data de emissão: 25/06/2025

Código	Disciplina - Turma	CH/CR	Conceito	Frequência (%)	Per./Ano	Docente
Eletivas						
GEO-742	TÓPICOS ESPECIAIS EM GEOLOGIA II - Métodos semi-quantitativos para dados magnéticos	60/4	9,0/A	80	2º Sem./2017	SAULO POMONET OLIVEIRA
GEOL-7043	SISTEMAS HIDROGEOLÓGICOS - A	60/4	9,0/A	100	1º Sem./2018	ERNANI FRANCISCO DA ROSA FILHO
GEOL-7033	PROCESSAMENTO E INTERPRETAÇÃO DE DADOS AEROGEOFÍSICOS - A	60/4	9,0/A	75	1º Sem./2018	FRANCISCO JOSÉ FONSECA FERREIRA
Validações de Créditos						
Código	Disciplina	CH/CR	Conceito	Frequência (%)	Crédito (Tipo)	Ano - Instituição
-	HIDROGEOLOGIA DE AQUÍFEROS FRATURADOS	30/2	A	100	Eletivo (Aproveitamento)	2018 - UFRGS
-	TOPOGRAFIA APLICADA AO GEORREFERENCIAMENTO	75/5	A	100	Eletivo (Aproveitamento)	2018 - Unisinos
-	SISTEMAS DE REFERÊNCIA GEODÉSICA	30/2	A	100	Eletivo (Aproveitamento)	2018 - Unisinos
-	MÉTODOS E MEDIDAS DE POSICIONAMENTO GEODÉSICO	75/5	A	100	Eletivo (Aproveitamento)	2018 - Unisinos
-	CARTOGRAFIA DIGITAL E DADOS PARA SIG	45/3	A	100	Eletivo (Aproveitamento)	2018 - Unisinos
-	PROJEÇÕES CARTOGRÁFICAS	45/3	A	100	Eletivo (Aproveitamento)	2018 - Unisinos
Créditos de Disciplinas para Titulação (necessários/concluídos) - Obrigatórios: 4/0 Eletivos: 32/32 Total: 36/32						

Resolução no. 32/17 - CEPE Conceito: A = Excelente (9,0 a 10,0) B = Muito Bom (8,0 a 8,9) C = Bom (7,0 a 7,9) D = Insuficiente (0,0 a 6,9)

CAROLINA DANIELSKI AQUINO

Coordenação do Programa de Pós Graduação em
GEOLOGIA



FEDERAL UNIVERSITY OF RIO GRANDE DO SUL
Graduate Studies Program in Water Resources and Environmental Sanitation



Academic Transcript

Name: Rafael Lima Dessart

ID: 2017712452

Program: WATER RESOURCES AND ENVIRONMENTAL SANITATION - Doctorate

Advisor: PEDRO ANTONIO ROEHE REGINATO

Co-advisor: Cristiane Heredia Gomes

Proficiency in Language(s): Spanish, English

Card Number: 297759

CPF: 69222576004

Status: GRADUATED

Date of Birth: 08/20/1975

Period	Code	Course/Professor	Credits	Work load	Grade	attendance (%)	Status	Institution
2019/01	HIP00109	Seminars I Professor: Professor: FERNANDO MAINARDI FAN Degree: PhD Professor: Professor: LÚCIA HELENA RIBEIRO RODRIGUES Degree: PhD	1	15	A	100.00	Approved	UFRGS
2018/02	HIP60079	Special Study: Geology Applied to Natural Disasters Professor: Professor: PEDRO ANTONIO ROEHE REGINATO Degree: PhD	2	30	A	*	Approved	UFRGS
2018/02	HIP00111	Seminars II Professor: Professor: FERNANDO MAINARDI FAN Degree: PhD Professor: Professor: LÚCIA HELENA RIBEIRO RODRIGUES Degree: PhD	1	15	A	100.00	Approved	UFRGS
2018/01		Course: Processing and Interpretation of Aerogeophysical Data Professor: Professor: FRANCISCO JOSÉ FONSECA FERREIRA	4	60	*	*	External Transfer	UFPR
2018/01		Course: HYDROLOGICAL SYSTEMS Professor: Professor: ERNANI FRANCISCO DA ROSA FILHO	4	60	*	*	External Transfer	UFPR
2017/02		Course: SPECIAL TOPICS IN GEOLOGY II Professor: Professor: SAULO POMPONET OLIVEIRA	4	60	*	*	External Transfer	UFPR
2017/02	HIP60078	Special Study: Hydrogeology of Fractured Aquifers Professor: Professor: PEDRO ANTONIO ROEHE REGINATO Degree: PhD	2	30	A	100.00	Validated	UFRGS
2007/02		Course: Transitional and Shallow Marine Depositional Systems Professor:	3	60	*	*	External Transfer	UNISINOS
2006/01		Course: Clastic Terrigenous Depositional Systems Professor:	8	180	*	*	External Transfer	UNISINOS
2005/02		Course: Special Topics in Environmental Management – Applied Geophysics Professor:	*	60	A	*	External Transfer	UNISINOS
07/03/2019		Qualifying Exam	*	*	*	*	Approved	UFRGS
		Spanish on 08/26/2022	*	*	*	*		
		English Clearance on 09/26/2022	*	*	*	*		

Total

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FEDERAL UNIVERSITY OF RIO GRANDE DO SUL
Graduate Studies Program in Water Resources and Environmental Sanitation



Academic Transcript

Name: Rafael Lima Dessart
ID: 2017712452

Card Number: 297759
CPF: 69222576004

Status: GRADUATED
Date of Birth: 08/20/1975

Grading Scale
Concept A = Excellent
Concept B = Good
Concept C = Fair
Concept D = Unsatisfactory
Concept FF = Absence

Credits Completed with Approval in this Program:	4
Validated Credits:	2
External Credits:	23
Total:	29

Dissertation: INTEGRATION OF HYDROGEOLOGICAL, GEOPHYSICAL, AND STRUCTURAL DATA IN THE HYDROGEOLOGICAL INVESTIGATION OF THE CRYSTALLINE BASEMENT, BAGÉ/RS

Defense Date: 03/14/2022 **Status:** Approved

Official Approval: 11/01/2022

Examining Committee	Evaluation	Institution
Everton Frigo	Approved	Federal University of Pampa
Franciele Schwanck Carlos	Approved	UFRGS
Nelson Amoretti Lisboa	Approved	UFRGS

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: July 01, 2025.



Universidade Federal do Rio Grande do Sul
Programa de Pós-Graduação em Recursos Hídricos e Saneamento Ambiental



Histórico Curso

Nome: Rafael Lima Dessart

Identidade: 2017712452

Curso: RECURSOS HÍDRICOS E SANEAMENTO AMBIENTAL - Doutorado

Orientador: PEDRO ANTONIO ROEHE REGINATO

Coorientador: Cristiane Heredia Gomes

Proficiência no(s) Idioma(s): Espanhol, Inglês

Cartão: 297759

CPF: 69222576004

Situação: TITULADO

Data de Nascimento: 20/08/1975

Período	Código	Atividade de Ensino/Professor	Créditos	Carga Horária	Conceito	Frequência (%)	Situação	Instituição
2019/01	HIP00109	Seminários I - Professor: Professor: FERNANDO MAINARDI FAN Titulação: Doutorado Professor: Professor: LÚCIA HELENA RIBEIRO RODRIGUES Titulação: Doutorado	1	15	A	100.00	Aprovado	UFRGS
2018/02	HIP60079	Estudo Especial: Geologia Aplicada a Desastres Naturais Professor: Professor: PEDRO ANTONIO ROEHE REGINATO Titulação: Doutorado	2	30	A	-	Aprovado	UFRGS
2018/02	HIP00111	Seminários II Professor: Professor: FERNANDO MAINARDI FAN Titulação: Doutorado Professor: Professor: LÚCIA HELENA RIBEIRO RODRIGUES Titulação: Doutorado	1	15	A	100.00	Aprovado	UFRGS
2018/01		Disciplina - Processamento e Interpretação de Dados Aerogeofísicos Professor: Professor: FRANCISCO JOSÉ FONSECA FERREIRA	4	60	-	-	Aprov. Externo	UFPR
2018/01		Disciplina - SISTEMAS HIDROLÓGICOS Professor: Professor: ERNANI FRANCISCO DA ROSA FILHO	4	60	-	-	Aprov. Externo	UFPR
2017/02		Disciplina - TÓPICOS ESPECIAIS EM GEOLOGIA II Professor: Professor: SAULO POMPONET OLIVEIRA	4	60	-	-	Aprov. Externo	UFPR
2017/02	HIP60078	Estudo Especial: Hidrogeologia de Aquíferos Fraturados Professor: Professor: PEDRO ANTONIO ROEHE REGINATO Titulação: Doutorado	2	30	A	100.00	Validação	UFRGS
2007/02		Disciplina - Sistemas Depositionais Transicionais e Marinhos Rasos Professor:	3	60	-	-	Aprov. Externo	UNISINOS
2006/01		Disciplina - Sistemas Depositionais Clásticos Terrígenos Professor:	8	180	-	-	Aprov. Externo	UNISINOS
2005/02		Disciplina - Tópicos Especiais em Gerenciamento Ambiental - Geofísica Aplicada Professor:	-	60	A	-	Aprov. Externo	UNISINOS
03/07/2019		Exame de Qualificação	-	-	-	-	Aprovado	UFRGS
		Espanhol em 26/08/2022	-	-	-	-		
		Liberção de Inglês em 26/09/2022	-	-	-	-		

Totais

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Universidade Federal do Rio Grande do Sul
Programa de Pós-Graduação em Recursos Hídricos e Saneamento Ambiental



Histórico Curso

Nome: Rafael Lima Dessart

Identidade: 2017712452

Cartão: 297759

CPF: 69222576004

Situação: TITULADO

Data de Nascimento: 20/08/1975

Conceitos
A - Conceito Ótimo
B - Conceito Bom
C - Conceito Regular
D - Conceito Insatisfatório
FF - Falta de Frequência

Créditos cursados com aprovação neste Curso:	4
Créditos por Validação:	2
Créditos por Aproveitamento Externo:	23
Total:	29

Tese: INTEGRAÇÃO DE DADOS HIDROGEOLÓGICOS, GEOFÍSICOS E ESTRUTURAIS NA INVESTIGAÇÃO HIDROGEOLÓGICA NO EMBASAMENTO CISTALINO, BAGÉ/RS

Data de Defesa: 14/03/2022 **Situação:** Aprovado

Homologação: 01/11/2022

Banca Examinadora	Avaliação	Instituição
Everton Frigo	Aprovado	Universidade Federal do Pampa
Franciéle Schwanck Carlos	Aprovado	UFRGS
NELSON AMORETTI LISBOA	Aprovado	UFRGS

25



UNIVERSITY OF VALE DO RIO DOS SINOS

Recognized by Ministerial Ordinance No. 453 of 11/21/1983, published in the Federal Official Gazette on 11/22/1983
São Leopoldo – Rio Grande do Sul – Brazil

The President of the University of Vale do Rio dos Sinos, in the exercise of his duties and given the completion of the Master's program in the Graduate Studies Program in Geology, with the approval of the thesis on December 21, 2009,

hereby confers the degree of

MASTER IN GEOLOGY
AREA OF CONCENTRATION: SEDIMENTARY GEOLOGY

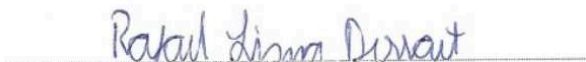
is
to

Rafael Lima Dessart

Brazilian, born in the State of Rio Grande do Sul – Brazil, on August 20, 1975, bearer of Identity Card No. 2017712452 – SJTC/RS,
and grants him this Diploma so that he may enjoy all legal rights and prerogatives.

São Leopoldo, August 18, 2010


Marcelo Fernandes de Aquino
President


Graduate


Alsones Balestrin
Director of the Research and Graduate Studies Unit

Recognized by Ordinance No. 2,878/2005 of the Ministry of Education, published in the Official Gazette on 08/26/2005, and Ordinance No. 524/2008 of the Ministry of Education, published in the Official Gazette on 04/30/2008

UNIVERSITY OF VALE DO RIO DOS SINOS – UNISINOS
Academic Records Management

Diploma registered under No. 1180 – page 238 of book MDP-2,
with **national validity**, following paragraph 1, article 48 of Law No.
9394 of December 20, 1996.
Process No. 27919/MSGEOLOGY/0565

São Leopoldo, August 18, 2010



Eusebio Schneider
Manager of Academic Records

MASTER'S DEGREE IN THE GRADUATE PROGRAM IN GEOLOGY

AREA OF CONCENTRATION: SEDIMENTARY GEOLOGY

Recognized by Ordinance No. 2,878/2005 of the Ministry of Education, published in the Official Gazette on 08/26/2005, and Ordinance No. 524/2008, published in the Official Gazette on 04/30/2008

COURSE COMPLETION CERTIFICATE

I HEREBY CERTIFY, as recorded in the archives of the University of Vale do Rio dos Sinos – UNISINOS, that **Rafael Lima Dessart**, registration no. 430494, born on August 20, 1975, from the State of Rio Grande do Sul, son of Jorge Geraldo Jayme Dessart and Sandra Lima, completed the Master's Degree in the Graduate Studies Program in Geology (recognized by the Ordinance of the Ministry of Education no. 2.878/2005, Official Gazette of 08/26/2005 and Ordinance of the Ministry of Education no. 524/2008, Official Gazette of 04/30/2008), and, upon approval of his thesis on December 21, 2009, obtained the degree of **Master in Geology – Area of Concentration: Sedimentary Geology**.

ACADEMIC TRANSCRIPT

Academic Activity	Grade	Credits	Workload
008298 - English Language Proficiency Exam	Waived	---	---
English Language Proficiency Exam, at UFRGS, in 2007	TRF		
In 2005 - 2nd semester			
090433 - Special Topics in Environmental Management – Applied Geophysics	8.0	3	60
In 2006 - 1st semester			
006642 - Seminar I	7.8	3	45
006644 - Clastic Terrigenous Depositional Systems	9.0	8	180
In 2007 - 2nd semester			
006643 - Final Master's Seminar	7.5	3	45
093510 - Transitional and Shallow Marine Depositional Systems	9.0	3	60
007171 - Sequence Stratigraphy	10	4	75
In 2009 - 2nd semester			
008022 - Thesis: "STRATIGRAPHIC CHARACTERIZATION OF THE FILLING OF THE INCISED VALLEY OF THE LOWER DOCE RIVER DURING THE LATE PLEISTOCENE – HOLOCENE"	7.0	8	---

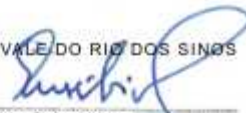
Numerical basis of grades - average of seven for approval

Minimum passing grade: 7.0, Minimum attendance: 85% of scheduled activities.

CAN: Canceled, DST: Withdrawn, INC: Incomplete, N/L: Not recorded, S/F: No attendance, TRF: Transferred

São Leopoldo, August 18, 2010

Certificate No.: 23.332/2010

UNIVERSITY OF VALE DO RIO DOS SINOS

Eusébio Schneider
Manager of Academic Records

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: July 02, 2025.



UNIVERSIDADE DO VALE DO RIO DOS SINOS

Reconhecida pela Portaria Ministerial n.º 453, de 21/11/1983, D.O.U. de 22/11/1983
São Leopoldo - Rio Grande do Sul - Brasil

O Reitor da Universidade do Vale do Rio dos Sinos, no uso de suas atribuições, tendo em vista a conclusão do Mestrado no Programa de Pós-Graduação em GEOLOGIA, com a aprovação da Dissertação em 21 de dezembro de 2009,

confere o grau de

MESTRE EM GEOLOGIA
ÁREA DE CONCENTRAÇÃO: GEOLOGIA SEDIMENTAR

^a
Rafael Lima Dessart

brasileiro, natural do Estado do Rio Grande do Sul - Brasil, nascido em 20 de agosto de 1975, Cédula de Identidade n.º 2017712452 - SJTC/RS, e outorga-lhe o presente DIPLOMA para que possa gozar de todos os direitos e prerrogativas legais.

São Leopoldo, 18 de agosto de 2010.

M. F. de Aquino

Marcelo Fernandes de Aquino
Reitor

Rafael Lima Dessart

Diplomado

Alsones Balestrin
Diretor da Unidade de Pesquisa e Pós-Graduação

Reconhecido pela Portaria do Ministério da Educação nº 2.878/2005,
D.O.U. de 26/08/2005 e Portaria do Ministério da Educação nº
524/2008, D.O.U. de 30/04/2008

UNIVERSIDADE DO VALE DO RIO DOS SINOS – UNISINOS
Unidade de Apoio de Administração e Finanças
Gerência de Registros Acadêmicos

Diploma registrado sob n.º 1180 – fls. 238 do livro MDP-2 com validade
nacional, de acordo com o parágrafo 1º, do art. 48, da Lei n.º 9394, de
20 de dezembro de 1996.
Processo 27919/MSGEOLOGIA/0565

São Leopoldo, 18 de agosto de 2010.



Eusebio Schneider
Gerente de Registros Acadêmicos

**MESTRADO NO PROGRAMA DE PÓS-GRADUAÇÃO EM GEOLOGIA
ÁREA DE CONCENTRAÇÃO: GEOLOGIA SEDIMENTAR.**

Reconhecido pela Portaria do Ministério da Educação nº 2.878/2005, D.O.U. de 26/08/2005 e Portaria do
Ministério da Educação nº 524/2008, D.O.U. de 30/04/2008

CERTIFICADO DE CONCLUSÃO DE CURSO

CERTIFICO, conforme consta nos assentamentos da Universidade do Vale do Rio dos Sinos, UNISINOS, que **Rafael Lima Dessart**, nº 430494, nascido em 20 de agosto de 1975, natural do Estado do Rio Grande do Sul, filho de Jorge Geraldo Jayme Dessart e de Sandra Lima, concluiu o Mestrado no Programa de Pós-Graduação em Geologia (reconhecido pela Portaria do Ministério da Educação nº 2.878/2005, D.O.U. de 26/08/2005 e Portaria do Ministério da Educação nº 524/2008, D.O.U. de 30/04/2008), tendo, com a aprovação da Dissertação em 21 de dezembro de 2009, obtido o grau de **Mestre em Geologia - Área de Concentração: Geologia Sedimentar**.

HISTÓRICO ESCOLAR

Atividade Acadêmica	Grau	Cr.	H-Aula
008298 - Exame de Proficiência em Língua Inglesa	Dispensado	---	---
Exame de Proficiência em Língua Inglesa, na UFRGS, em 2007	TRF	---	
Em 2005 – 2º semestre			
090433 - Tópicos Especiais em Gerenciamento Ambiental - Geofísica Aplicada	8.0	3	60
Em 2006 – 1º semestre			
006642 - Seminário I	7.8	3	45
006644 - Sistemas Depositionais Clásticos Terrígenos	9.0	8	180
Em 2007 – 2º semestre			
006643 - Seminário Final de Mestrado	7.5	3	45
093510 - Sistemas deposicionais transicionais e marinhos rasos	9.0	3	60
007171 - Estratigrafia de Sequências	10	4	75
Em 2009 – 2º semestre			
008022 - Dissertação: "CARACTERIZAÇÃO ESTRATIGRÁFICA DO PREENCHIMENTO DO VALE INCISO DO BAIXO RIO DOCE DURANTE O PLEISTOCENO SUPERIOR-Holoceno "	7.0	8	---

Base numérica de graus - média sete para aprovação

Grau mínimo aprovação: 7.0, Frequência mínima: 85% das atividades programadas.

CAN: Cancelado, DST: Desistente, INC: Incompleto, N/L: Não Lançado, S/F: Sem frequência, TRF: Transferência

São Leopoldo, 18 de agosto de 2010.

UNIVERSIDADE DO VALE DO RIO DOS SINOS



Eusébio Schneider
Gerente de Registros Acadêmicos

Nº Certificado: 23.332/2010



UNIVERSITY OF VALE DO RIO DOS SINOS

Recognized by Ministerial Ordinance No. 453 of 11/21/1983, published in the Federal Official Gazette on 11/22/1983
São Leopoldo – Rio Grande do Sul – Brazil

SCHOOL OF EXACT AND TECHNOLOGICAL SCIENCES

The President of the University of Vale do Rio dos Sinos, in the exercise of his duties, given the completion of the undergraduate program in Geology and the respective conferral of the Bachelor's Degree on December 18, 2003, of

GEOLOGIST

§
to

Rafael Lima Dessart

Brazilian, born in the State of Rio Grande do Sul – Brazil, on August 20, 1975, bearer of Identity Card No. 2017712452 – SJTC/RS, and issues this Diploma so that he may enjoy all legal rights and prerogatives.

São Leopoldo, December 18, 2003

Aloysio Bohnen
President

Silvia Costa Dutra

Director of the School of Exact and Technological Sciences

Jorge Luiz Pastorisa Jardim
Director of Academic Administration

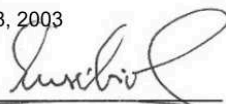
Graduate

Undergraduate Program in GEOLOGY, recognized by
Ordinance No. 1790/1993 of the Ministry of Education, Official
Gazette on 12/23/1993

UNIVERSITY OF VALE DO RIO DOS SINOS – UNISINOS
Vice-President's Office of Education and Research
Academic Administration Directorate

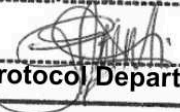
Diploma registered under No. 13739, page 058 of book G-17,
with **national validity** following paragraph 1, article 48 of
Law No. 9394 of December 20, 1996.
Process No. 7020/2003/2

São Leopoldo, December 18, 2003


Eusebio Schneider
Coordinator of Academic Records

**This diploma was submitted for
registration with CREA-RS**

On: 11 / 12 / 2004

Signature: 

Protocol Department

Cristiane Oliveira de Castro
Protocol Department
CREA/RS

CERTIFICATE

I HEREBY CERTIFY, AS RECORDED IN THE FILES OF THE ACADEMIC ADMINISTRATION DIRECTORATE OF THE UNIVERSITY OF VALE DO RIO DOS SINOS, THAT **RAFAEL LIMA DESSART**, ID NUMBER 9732487, BORN ON AUGUST 20, 1975, FROM THE STATE OF RIO GRANDE DO SUL, SON OF JORGE GERALDO JAYME DESSART AND SANDRA LIMA, COMPLETED THE UNDERGRADUATE PROGRAM IN GEOLOGY, RECOGNIZED BY DECREE NO. 80.111 OF 08/09/1977, PUBLISHED IN THE OFFICIAL GAZETTE ON 08/10/1977, AND BY MINISTERIAL ORDINANCE NO. 1.790 OF 12/22/1993, PUBLISHED IN THE OFFICIAL GAZETTE ON 12/23/1993, AND WAS OFFICIALLY AWARDED THE DEGREE OF GEOLOGIST ON DECEMBER 18, 2003, HAVING COMPLETED THE FOLLOWING COURSES:

10204 - LATIN AMERICAN HISTORY WORKSHOP	WAIVED	
COURSE(S) TAKEN AT UNISINOS	:	
BRAZILIAN REALITY AND CITIZENSHIP	6.00	60 CLASS HOURS
10205 - PHILOSOPHY WORKSHOP	WAIVED	
COURSE(S) TAKEN AT UNISINOS	:	
LOGIC AND METHODOLOGY	6.60	60 CLASS HOURS
60221 - ENVIRONMENTAL PLANNING AND MANAGEMENT I	WAIVED	
COURSE(S) TAKEN AT UNISINOS	:	
CRYSTALLOGRAPHY	7.40	90 CLASS HOURS
GEOINFORMATICS	7.30	60 CLASS HOURS
GEOMORPHOLOGY	6.00	60 CLASS HOURS
60222 - ENVIRONMENTAL PLANNING AND MANAGEMENT II	WAIVED	
COURSE(S) TAKEN AT UNISINOS	:	
CRYSTALLOGRAPHY (SEE WAIVER OF COURSE 60221)		
GEOINFORMATICS (SEE WAIVER OF COURSE 60221)		
GEOMORPHOLOGY (SEE WAIVER OF COURSE 60221)		
60296 - APPLIED SEDIMENTARY GEOLOGY I	WAIVED	
COURSE(S) TAKEN AT UNISINOS	:	
FIELD WORK I	APPROVED	60 CLASS HOURS
ENERGY RESOURCES	6.90	60 CLASS HOURS
60297 - APPLIED SEDIMENTARY GEOLOGY II	WAIVED	
COURSE(S) TAKEN AT UNISINOS	:	
FIELD WORK I (SEE WAIVER OF COURSE 60296)		
ENERGY RESOURCES (SEE WAIVER OF COURSE 60296)		
60233 - EXPLORATION AND EVALUATION OF MINERAL DEPOSITS I	WAIVED	
COURSE(S) TAKEN AT UNISINOS	:	
FIELD WORK II	6.00	60 CLASS HOURS
60234 - EXPLORATION AND EVALUATION OF MINERAL DEPOSITS II	WAIVED	
FIELD WORK II (SEE WAIVER OF COURSE 60233)		
30177 - LITERARY CREATION WORKSHOP	WAIVED	

(Continued)

(CONTINUATION)

NAME: RAFAEL LIMA DESSART

ID NUMBER: 9732487

COURSE(S) TAKEN AT UNISINOS	:	
DESCRIPTIVE GEOMETRY I	6.00	60 CLASS HOURS
30178 - LATIN AMERICAN LITERATURE WORKSHOP	WAIVED	
COURSE(S) TAKEN AT UNISINOS	:	
BASIC MATHEMATICS	6.60	60 CLASS HOURS
30021 - PRACTICAL ENGLISH FOR EXACT SCIENCES	WAIVED	
COURSE(S) TAKEN AT UNISINOS	:	
PRACTICAL ENGLISH FOR HEALTH SCIENCES	6.40	60 CLASS HOURS
IN 1997 - SECOND SEMESTER		
11001 - ANTHROPOLOGY	7.80	60 CLASS HOURS
31001 - PORTUGUESE	6.60	60 CLASS HOURS
IN 1998 - 1ST SEMESTER		
75016 - GENERAL GEOLOGY	6.10	120 CLASS HOURS
IN 1998 - 2ND SEMESTER		
21155 - BIOLOGY FOR GEOLOGISTS	7.40	60 CLASS HOURS
63099 - FUNDAMENTALS OF VECTOR ALGEBRA AND ANALYTICAL GEOMETRY	6.50	120 CLASS HOURS
75075 MINERALOGY AND PETROGRAPHY	6.60	60 CLASS HOURS
IN 1999 - 1ST SEMESTER		
61094 - FUNDAMENTALS OF PHYSICS I	6.00	60 CLASS HOURS
75079 - PALEONTOLOGY	7.00	120 CLASS HOURS
IN 1999 - 2ND SEMESTER		
61095 - FUNDAMENTALS OF PHYSICS II	7.90	60 CLASS HOURS
62031 - APPLIED CHEMISTRY I	6.40	60 CLASS HOURS
75072 - MICROPALAEONTOLOGY	7.40	60 CLASS HOURS
75081 - SEDIMENTOLOGY	6.40	60 CLASS HOURS
IN 2000 - 1ST SEMESTER		
75076 - IGNEOUS PETROLOGY	7.70	90 CLASS HOURS
75080 - STRATIGRAPHY	6.50	60 CLASS HOURS
75082 - STRUCTURAL GEOLOGY	7.40	120 CLASS HOURS
IN 2000 - 2ND SEMESTER		
60213 - AERIAL PHOTOGEOLOGY AND DIGITAL CARTOGRAPHY	6.00	90 CLASS HOURS
71080 - TOPOGRAPHY I	7.50	60 CLASS HOURS
75078 - SEDIMENTARY PETROLOGY	6.80	60 CLASS HOURS
IN 2001 - 1ST SEMESTER		
60226 - METAMORPHIC PETROLOGY	6.00	60 CLASS HOURS
60232 - GEOGRAPHIC INFORMATION SYSTEMS AND REMOTE SENSING	6.10	60 CLASS HOURS
75026 - HISTORICAL GEOLOGY	7.90	60 CLASS HOURS
75086 - GEOPHYSICS	6.40	60 CLASS HOURS
IN 2001 - 2ND SEMESTER		
75115 - GEOSTATISTICS	6.40	60 CLASS HOURS
IN 2002 - 1ST SEMESTER		
60230 - ECONOMIC GEOLOGY	6.00	60 CLASS HOURS
60240 - GEOTECHNICS	7.90	90 CLASS HOURS
62091 - ENVIRONMENTAL SCIENCES	7.00	60 CLASS HOURS
IN 2002 - 2ND SEMESTER		
10010 - GENERAL ETHICS	9,20	60 CLASS HOURS
60214 - CLIMATOLOGY AND HYDROLOGY	6.40	60 CLASS HOURS
60217 - LOW-TEMPERATURE GEOCHEMISTRY	6.00	30 CLASS HOURS

(Continued)

(CONTINUATION)

NAME: RAFAEL LIMA DESSART

ID NUMBER: 9732487

60235 - SEMINAR	8.40	30 CLASS HOURS
60236 - SPECIAL TOPICS IN GEOSCIENCES I	7.00	30 CLASS HOURS
60238 - SPECIAL TOPICS IN GEOSCIENCES III	6.00	30 CLASS HOURS
IN 2003 - 1ST SEMESTER		
10209 - HUMANISM AND TECHNOLOGY - 6	8.70	60 CLASS HOURS
60056 - CALCULUS A	6.60	60 CLASS HOURS
60218 - HIGH-TEMPERATURE GEOCHEMISTRY	8.70	60 CLASS HOURS
60231 - MINERAL PROSPECTING	7.80	60 CLASS HOURS
75094 - FINAL THESIS	APPROVED	120 CLASS HOURS
IN 2003 - 2ND SEMESTER		
60223 - INTRODUCTION TO SOIL SCIENCE	6.00	30 CLASS HOURS
60241 - SOUTH AMERICAN GEOLOGY	8.00	30 CLASS HOURS
75034 - GEODYNAMICS	6.20	60 CLASS HOURS
75056 - HYDROGEOLOGY	8.40	60 CLASS HOURS
75108 - COASTAL ENVIRONMENTS	9.00	60 CLASS HOURS
75111 - ENVIRONMENTAL PLANNING AND MANAGEMENT	8.00	60 CLASS HOURS
75114 - STRUCTURAL GEOLOGY APPLIED TO MINERAL DEPOSITS	9.00	60 CLASS HOURS

TOTAL COMPLEMENTARY ACTIVITIES:

	COMPLETED HOURS	APPROVED HOURS
- PORTUGUESE	60h	60h
- RESEARCH ASSISTANT WITH THE SPECIAL TRAINING PROGRAM - PET/CAPES - GROUP: PET/GEOLOGY	48h	48h
- SCIENTIFIC INITIATION SCHOLARSHIP / PIBIC / CNPQ - PROJECT: GEOMETRY, ARCHITECTURE, AND HETEROGENEITY OF SEDIMENTARY BODIES	880h	96h
- WORKSHOP: TECHNIQUES AND PROCEDURES FOR WORKING WITH FOSSILS	48h	24h
- UNISINOS SCIENTIFIC INITIATION SCHOLARSHIP - UNIBIC: PROJECT GEOMETRY, ARCHITECTURE, AND HETEROGENEITIES OF SEDIMENTARY BODIES	880h	96h
- CONFERENCE ABSTRACT: COASTAL TO SHALLOW MARINE ANALOGUE MODEL FOR GAS RESERVOIR IN THE PARANÁ BASIN - DRAW OUT (...)	20h	20h
- II INTERNATIONAL SEMINAR ON AGROECOLOGY, III STATE SEMINAR ON AGROECOLOGY, AND III NATIONAL MEETING ON AGROECOLOGICAL RESEARCH	25h	12h30min
TOTAL NUMBER OF COMPLEMENTARY ACTIVITIES	1961h	356h30min

TOTAL PROGRAM WORKLOAD: 3,896 HOURS AND 30 MINUTES

SÃO LEOPOLDO, DECEMBER 18, 2003

UNIVERSITY OF VALE DO RIO DOS SINOS

Eusebio Schneider
Manager of Academic Records

Certificate No.: 03870 / 2003

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: July 02, 2025.



UNIVERSIDADE DO VALE DO RIO DOS SINOS

Reconhecida pela Portaria Ministerial n.º 453, de 21/11/1983, D.O.U. de 22/11/1983

São Leopoldo - Rio Grande do Sul - Brasil

CENTRO DE CIÊNCIAS EXATAS E TECNOLÓGICAS

O Reitor da Universidade do Vale do Rio dos Sinos, no uso de suas atribuições, tendo em vista a conclusão do curso superior de graduação em Geologia e a respectiva colação de grau, em 18 de dezembro de 2003, de

GEÓLOGO

por

Rafael Lima Dessart

brasileiro, natural do Estado do Rio Grande do Sul - Brasil, nascido em 20 de agosto de 1975, Cédula de Identidade n.º 2017712452 - SITC/RS, outorga-lhe o presente DIPLOMA para que possa gozar de todos os direitos e prerrogativas legais.

São Leopoldo, 18 de dezembro de 2003.

A. Bohnen

Aloysio Bohnen
Reitor

S. Costa Dutra

Silvia Costa Dutra
Diretora do Centro de Ciências Exatas e Tecnológicas

Jorge Jardim

Jorge Luiz Pastorisa Jardim
Diretor de Administração Acadêmica

Rafael Lima Dessart

Diplomado

Curso de GEOLOGIA, reconhecido pela Portaria do Ministério da Educação n.º 1790/1993, D.O.U. de 23/12/1993

UNIVERSIDADE DO VALE DO RIO DOS SINOS – UNISINOS
Pró-Reitoria de Ensino e Pesquisa
Diretoria de Administração Acadêmica

Diploma registrado sob n.º 13739 – fls. 058 do livro G-17, com validade nacional, de acordo com o parágrafo 1º, do art. 48, da Lei n.º 9394, de 20 de dezembro de 1996.
Processo n.º 7020/2003/2

São Leopoldo, 18 de dezembro de 2003.



Eusébio Schneider
Coordenador de Registros Acadêmicos

Este Diploma foi apresentado para
Registro no CREA-RS

Em: 12.11.2004

Ass.:  Setor de Protocolo

Cristiane Oliveira de Castro
Setor de Protocolo
CREA/Rs

C E R T I F I C A D O

CERTIFICO, CONFORME CONSTA NOS ASSENTAMENTOS DA DIRETORIA DE ADMINISTRACAO ACADEMICA DA UNIVERSIDADE DO VALE DO RIO DOS SINOS, QUE **RAFAEL LIMA DESSART**, NUMERO 9732487, NASCIDO EM 20 DE AGOSTO DE 1975, NATURAL DO ESTADO DO RIO GRANDE DO SUL, FILHO DE JORGE GERALDO JAYME DESSART E DE SANDRA LIMA, CONCLUIU O CURSO DE GEOLOGIA, RECONHECIDO PELO DECRETO NUMERO 80.111 DE 09/08/1977, D.O.U. DE 10/08/1977 E PELA PORTARIA MINISTERIAL NUMERO 1.790 DE 22/12/1993, D.O.U. DE 23/12/1993, E COLOU GRAU DE GEOLOGO NO DIA 18 DE DEZEMBRO DE 2003, TENDO CURSADO AS SEGUINTE DISCIPLINAS:

10204 - OFICINA DE HISTORIA LAT.-AMERICANA	DISP	
DISCIPLINA(S) CURSADA(S) NO(A) UNISINOS	:	
REALIDADE BRASILEIRA E CIDADANIA	6,00 -	60 H-AULA
10205 - OFICINA DE FILOSOFIA	DISP	
DISCIPLINA(S) CURSADA(S) NO(A) UNISINOS	:	
LOGICA E METODOLOGIA	6,60 -	60 H-AULA
60221 - PLANEJAMENTO E GESTAO AMBIENTAL I	DISP	
DISCIPLINA(S) CURSADA(S) NO(A) UNISINOS	:	
CRISTALOGRAFIA	7,40 -	90 H-AULA
GEOINFORMATICA	7,30 -	60 H-AULA
GEOMORFOLOGIA	6,00 -	60 H-AULA
60222 - PLANEJAMENTO E GESTAO AMBIENTAL II	DISP	
DISCIPLINA(S) CURSADA(S) NO(A) UNISINOS	:	
CRISTALOGRAFIA		
(VIDE DISPENSA DA DISCIPLINA 60221)		
GEOINFORMATICA		
(VIDE DISPENSA DA DISCIPLINA 60221)		
GEOMORFOLOGIA		
(VIDE DISPENSA DA DISCIPLINA 60221)		
60296 - GEOLOGIA SEDIMENTAR APLICADA I	DISP	
DISCIPLINA(S) CURSADA(S) NO(A) UNISINOS	:	
TRABALHO DE CAMPO I	APR -	60 H-AULA
RECURSOS ENERGETICOS	6,90 -	60 H-AULA
60297 - GEOLOGIA SEDIMENTAR APLICADA II	DISP	
DISCIPLINA(S) CURSADA(S) NO(A) UNISINOS	:	
TRABALHO DE CAMPO I		
(VIDE DISPENSA DA DISCIPLINA 60296)		
RECURSOS ENERGETICOS		
(VIDE DISPENSA DA DISCIPLINA 60296)		
60233 - EXPLORACAO E AVAL.DEPOSITOS MIN. I	DISP	
DISCIPLINA(S) CURSADA(S) NO(A) UNISINOS	:	
TRABALHO DE CAMPO II	6,00 -	60 H-AULA
60234 - EXPLORACAO E AVAL.DEPOSITOS MIN. II	DISP	
DISCIPLINA(S) CURSADA(S) NO(A) UNISINOS	:	
TRABALHO DE CAMPO II		
(VIDE DISPENSA DA DISCIPLINA 60233)		
30177 - OFICINA DE CRIACAO LITERARIA	DISP	


(CONTINUA)

(CONTINUACAO)

NOME: RAFAEL LIMA DESSART

NUMERO: 9732487

	DISCIPLINA(S) CURSADA(S) NO(A) UNISINOS	:	
	GEOMETRIA DESCRITIVA I	6,00 - 60 H-AULA	
30178 -	OFICINA DE LITERATURA LAT-AMERICANA	DISP	
	DISCIPLINA(S) CURSADA(S) NO(A) UNISINOS	:	
	MATEMATICA FUNDAMENTAL	6,10 - 60 H-AULA	
30021 -	INGLES INSTRUMENTAL P/ CIENC.EXATAS	DISP	
	DISCIPLINA(S) CURSADA(S) NO(A) UNISINOS	:	
	INGLES INSTRUMENTAL P/ CIENC. SAUDE	6,40 - 60 H-AULA	
	EM 1997 - SEGUNDO SEMESTRE		
11001 -	ANTROPOLOGIA	7,80 - 60 H-AULA	
31001 -	PORTUGUES	6,60 - 60 H-AULA	
	EM 1998 - PRIMEIRO SEMESTRE		
75016 -	GEOLOGIA GERAL	6,10 - 120 H-AULA	
	EM 1998 - SEGUNDO SEMESTRE		
21155 -	BIOLOGIA PARA GEOLOGOS	7,40 - 60 H-AULA	
63099 -	FUNDAM. DE ALG. VETOR. E GEOM.ANAL.	6,50 - 60 H-AULA	
75075 -	MINERALOGIA E PETROGRAFIA	6,60 - 120 H-AULA	
	EM 1999 - PRIMEIRO SEMESTRE		
61094 -	FUNDAMENTOS DE FISICA I	6,00 - 60 H-AULA	
75079 -	PALEONTOLOGIA	7,00 - 120 H-AULA	
	EM 1999 - SEGUNDO SEMESTRE		
61095 -	FUNDAMENTOS DE FISICA II	7,90 - 60 H-AULA	
62031 -	QUIMICA APLICADA I	6,40 - 60 H-AULA	
75072 -	MICROPALEONTOLOGIA	7,40 - 60 H-AULA	
75081 -	SEDIMENTOLOGIA	6,40 - 60 H-AULA	
	EM 2000 - PRIMEIRO SEMESTRE		
75076 -	PETROLOGIA IGNEA	7,70 - 90 H-AULA	
75080 -	ESTRATIGRAFIA	6,50 - 60 H-AULA	
75082 -	GEOLOGIA ESTRUTURAL	7,40 - 120 H-AULA	
	EM 2000 - SEGUNDO SEMESTRE		
60213 -	AEROFOTOGEOLOGIA E CARTOGR. DIGITAL	6,00 - 90 H-AULA	
71080 -	TOPOGRAFIA I	7,50 - 60 H-AULA	
75078 -	PETROLOGIA SEDIMENTAR	6,80 - 60 H-AULA	
	EM 2001 - PRIMEIRO SEMESTRE		
60226 -	PETROLOGIA METAMORFICA	6,00 - 60 H-AULA	
60232 -	SIST.INFORM.GEOGRAF.SENSOR.REMOTO	6,10 - 60 H-AULA	
75026 -	GEOLOGIA HISTORICA	7,90 - 60 H-AULA	
75086 -	GEOFISICA	6,40 - 60 H-AULA	
	EM 2001 - SEGUNDO SEMESTRE		
75115 -	GEOESTATISTICA	6,40 - 60 H-AULA	
	EM 2002 - PRIMEIRO SEMESTRE		
60230 -	GEOLOGIA ECONOMICA	6,00 - 60 H-AULA	
60240 -	GEOTECNICA	7,90 - 90 H-AULA	
62091 -	CIENCIAS DO AMBIENTE	7,00 - 60 H-AULA	
	EM 2002 - SEGUNDO SEMESTRE		
10010 -	ETICA GERAL	9,20 - 60 H-AULA	
60214 -	CLIMATOLOGIA E HIDROLOGIA	6,40 - 60 H-AULA	
60217 -	GEOQUIMICA DE BAIXA TEMPERATURA	6,00 - 30 H-AULA	

(CONTINUA)

(CONTINUACAO)

NOME: RAFAEL LIMA DESSART

NUMERO: 9732487

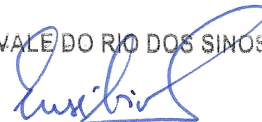
60235 - SEMINARIO	8,40 - 30 H-AULA
60236 - TOPICOS ESPECIAIS EM GEOCIENCIAS I	7,00 - 30 H-AULA
60238 - TOPICOS ESPECIAIS GEOCIENCIAS III	6,00 - 30 H-AULA
EM 2003 - PRIMEIRO SEMESTRE	
10209 - HUMANISMO E TECNOLOGIA-6	8,70 - 60 H-AULA
60056 - CALCULO A	6,60 - 60 H-AULA
60218 - GEOQUIMICA DE ALTA TEMPERATURA	8,70 - 60 H-AULA
60231 - PROSPECÇÃO MINERAL	7,80 - 60 H-AULA
75094 - TRABALHO DE CONCLUSAO	AP.D - 120 H-AULA
EM 2003 - SEGUNDO SEMESTRE	
60223 - INTRODUÇÃO A CIENCIA DO SOLO	6,00 - 30 H-AULA
60241 - GEOLOGIA DA AMERICA DO SUL	8,00 - 30 H-AULA
75034 - GEODINAMICA	6,20 - 60 H-AULA
75056 - HIDROGEOLOGIA	8,40 - 60 H-AULA
75108 - AMBIENTES COSTEIROS	9,00 - 60 H-AULA
75111 - PLANEJAM. E GERENCIAMENTO AMBIENTAL	8,00 - 60 H-AULA
75114 - GEOLOGIA ESTR. APLIC.A DEP.MINERAIS	9,00 - 60 H-AULA

	HORAS REALIZADAS	HORAS APROVEITADAS
ATIVIDADES COMPLEMENTARES		
- VIDE PORTUGUES	60h	60h
- AUX.DE PESQUISA JUNTO AO PROGRAMA ESPECIAL DE TREINAMENTO- PET/CAPIES - GRUPO: PET/GEOLOGIA	48h	48h
- BOLSA DE INICIAÇÃO CIENTIFICA/PIBIC/CNPQ - PROJETO: GEOME- TRIA, ARQUIT. E HETEROGENEIDADE DE CORPOS SEDIMENTARES	880h	96h
- TECNICAS E PROCEDIMENTOS PARA O TRABALHO COM FOSSEIS	48h	24h
- BOLSA DE INIC.CIENTIFICA DA UNISINOS-UNIBIC:PROJETO GEOME- TRIA, ARQUIT. E HETEROGENEIDADES DE CORPOS SEDIMENTARES	880h	96h
- RESUMO EM CONGRESSO: COASTAL TO SHALLOW MARINE ANALOGUE MODEL FOR GAS RESERVOIR IN THE PARANA BASIN DRAW OUT(...)	20h	20h
- II SEMIN.INTERN.SOBRE AGROECOLOGIA, III SEMIN.ESTADUAL SO- BRE AGROEC.E III ENCONTRO NAC.SOBRE PESQ.EM AGROECOLOGIA	25h	12h30min
TOTAL DE ATIVIDADES COMPLEMENTARES	1961h	356h30min

CARGA HORARIA TOTAL: 3.896h30min

SAO LEOPOLDO, 18 DE DEZEMBRO DE 2003.

UNIVERSIDADE DO VALE DO RIO DOS SINOS



Eusébio Schneider
Coordenador de Registros Acadêmicos

CERTIFICADO N. 03870/2003



UNIVERSITY OF VALE DO RIO DOS SINOS

Recognized by Ministerial Ordinance No. 453 of 11/21/1983, published in the Federal Official Gazette on 11/22/1983; Ministerial Ordinance No. 1083 of 11/20/2009, published in the Official Gazette on 11/23/2009; and re-accredited by Ministerial Ordinance No. 1426 of 10/07/2011, published in the Official Gazette on 10/10/2011
São Leopoldo – Rio Grande do Sul – Brazil

GRADUATE STUDIES CERTIFICATE SPECIALIZATION

awarded to

Rafael Lima Dessart

Brazilian, born in the state of Rio Grande do Sul – Brazil, on August 20, 1975, bearer of Identity Card No. 2017712452 – SJTC/RS,
for having successfully completed the 460-hour course in

Georeferenced Spatial Information

conducted following Resolution No. 01/2007 of the Higher Education Chamber of the National Education Council and in compliance
with the Bylaws and Internal Regulatory System of the University.

M. F. de Aquino
Marcelo Fernandes de Aquino
President

São Leopoldo, August 22, 2013

Rafael Lima Dessart
Graduate

Francisco Antonio Mesquita Zanini
Francisco Antonio Mesquita Zanini
Director of the Continuing Education Academic Unit

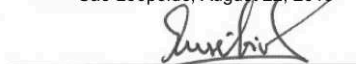
GEOREFERENCED SPATIAL INFORMATION			
Course Coordinator: Adriane Brill Thum			
Curriculum Schedule: April 2012 to May 2013			
Activity	Hours	Grade	Professor - Degree
Applied Topography for Georeferencing	80	8.0	Adriane Brill Thum – Master's Degree
Geodetic Reference Systems	36	7.2	Adriane Brill Thum – Master's Degree; Genival Corrêa de Souza – PhD
Methods and Measurements of Geodetic Positioning	80	8.0	Adriane Brill Thum – Master's Degree; César Augusto Cauduro – Specialist; Fernando Laque – Specialist
Digital Cartography and Data for GIS	44	8.6	Adriane Brill Thum – Master's Degree
Cartographic Projections	40	8.0	Adriane Brill Thum – Master's Degree; Irineu da Silva – Master's Degree; Genival Corrêa de Souza – PhD
Adjustment of Observations	80	8.0	Werney Andre Gorck – Specialist; Adriane Brill Thum – Master's Degree; César Augusto Cauduro – Specialist
Environmental Licensing and GIS Applications	20	10.0	Ana Cristina De Almeida Garcia - Master's Degree; Adriane Brill Thum - Master's Degree
Geoprocessing Applied to Urban Territorial Issues	20	9.0	Viviane Todt – PhD; Adriane Brill Thum – Master's Degree
Thesis: Precision of Coordinates Surveyed Using Different Methods and Equipment	60	8.1	Adriane Brill Thum (Advisor) – Master's Degree
Total Hours:	460		
Assessment Criteria: Minimum attendance of 75% of the scheduled workload, in each activity. Minimum required grade: 7.			
Notes:			

UNIVERSITY OF VALE DO RIO DOS SINOS – UNISINOS

ACADEMIC RECORDS MANAGEMENT

Record No. 45 – page 12 of book LF01.

São Leopoldo, August 22, 2013

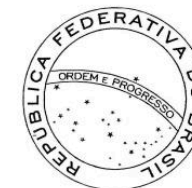


Eusebio Schneider
Manager of Academic Records

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: July 01, 2025.



UNIVERSIDADE DO VALE DO RIO DOS SINOS

Reconhecida pela Portaria Ministerial n.º 453, de 21/11/1983, D.O.U. de 22/11/1983, Portaria Ministerial n.º 1083, de 20/11/2009,
D.O.U. de 23/11/2009 e recredenciada pela Portaria Ministerial n.º 1426 de 07/10/2011, D.O.U. de 10/10/2011
São Leopoldo - Rio Grande do Sul - Brasil

CERTIFICADO DE PÓS-GRADUAÇÃO ESPECIALIZAÇÃO

conferido a

Rafael Lima Dessart

brasileiro, natural do estado do Rio Grande do Sul-Brasil, nascido em 20 de agosto de 1975, Cédula de Identidade nº 2017712452 - SJTC/RS
por ter concluído, com aprovação, as 460 horas do curso de

Informações Espaciais Georreferenciadas

realizado de acordo com a de acordo com a Resolução nº 01/2007 da Câmara de Educação Superior do Conselho Nacional de Educação e com as exigências do Estatuto e do
Sistema Normativo Interno da Universidade.

São Leopoldo, 22 de agosto de 2013.

M. F. de Aquino

Marcelo Fernandes de Aquino
Reitor

Rafael Lima Dessart
Concluinte

Francisco Antonio Mesquita Zanini
Francisco Antonio Mesquita Zanini
Diretor da Unidade Acadêmica de Educação Continuada

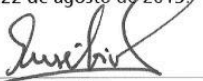
INFORMAÇÕES ESPACIAIS GEORREFERENCIADAS

Coordenação do Curso: Adriane Brill Thum

Programação Curricular: abril de 2012 a maio de 2013

Atividade	Horas	Aval.	Professor – Titulação
Topografia Aplicada ao Georreferenciamento	80	8.0	Adriane Brill Thum - Mestra
Sistemas de Referência Geodésica	36	7.2	Adriane Brill Thum - Mestra; Genival Corrêa de Souza - Doutor
Métodos e Medidas de Posicionamento Geodésico	80	8.0	Adriane Brill Thum - Mestra; Cézar Augusto Cauduro - Especialista; Fernando Lague - Especialista
Cartografia Digital e Dados para SIG	44	8.6	Adriane Brill Thum - Mestra
Projeções Cartográficas	40	8.0	Adriane Brill Thum - Mestra; Irineu da Silva - Mestre; Genival Corrêa de Souza - Doutor
Ajustamento de Observações	80	8.0	Werney Andre Gorck - Especialista; Adriane Brill Thum - Mestra; Cézar Augusto Cauduro - Especialista
Licenciamento Ambiental e Aplicações SIG	20	10.0	Ana Cristina De Almeida Garcia - Mestra; Adriane Brill Thum - Mestra
Geoprocessamento Aplicado a Questões Territoriais Urbanas	20	9.0	Viviane Todt - Doutora; Adriane Brill Thum – Mestra
Monografia: Precisão das Coordenadas Levantadas Através de Diferentes Métodos e Equipamentos.	60	8.1	Adriane Brill Thum(Orientadora)- Mestra
Total de Horas:	460		
CrITÉRIOS de Avaliação:	Frequência mínima de 75% da carga horária programada, em cada atividade. Aproveitamento mínimo exigido: 7.		
Observações:			

UNIVERSIDADE DO VALE DO RIO DOS SINOS - UNISINOS
GERÊNCIA DE REGISTROS ACADÊMICOS
Registro n.º 45 - folha 12 do livro LT01.
São Leopoldo, 22 de agosto de 2013.


Eusebio Schneider
Gerente de Registros Acadêmicos



Carnegie Evaluations LLC
315 East High Street, Bound Brook, New Jersey, 08805
Email: info@carnegieevaluations.com
Website: www.carnegieevaluations.com
Phone: (848)300-0099
Fax: (848) 300-5199

EVALUATION OF ACADEMICS

Carnegie Evaluations LLC, who specializes in the evaluation of foreign educational credentials, has prepared the following academic credential evaluation.

August 22, 2025

Name: **Mr. Rafael LIMA DESSART**

The following is a description of Mr. Lima Dessart's foreign degree:

Institution: *Universidade do Vale do Rio dos Sinos*
Degree: *Geologo*
Date of Award: December 2003
Country: Brazil

Institution: *Universidade do Vale do Rio dos Sinos*
Degree: *Mestre em Geologia*
Date of Completion: December 2009
Country: Brazil

Institution: *Universidade do Vale do Rio dos Sinos*
Degree: *Curso de Informacoes Espaciais Georreferenciadas*
Date of Award: August 2013
Country: Brazil

Institution: *Universidad Federal do Rio Grande do Sul*
Degree: *Doutor em Recursos Hidricos e Saneamento Ambiental*
Date of Award: March 2022
Country: Brazil

Academic Equivalency in the United States
BACHELOR OF SCIENCE IN GEOLOGY
MASTER OF SCIENCE DEGREE IN GEOLOGICAL SCIENCES
ONE YEAR OF GRADUATE STUDY IN GEOGRAPHIC INFORMATION SYSTEMS
DOCTOR OF PHILOSOPHY IN WATER RESOURCES

Carnegie Evaluations LLC offers this evaluation after reviewing copies of the original diploma certificates and transcripts provided. This evaluation is advisory in nature and is based on the assumption that the submitted documents are accurate. There are no apparent grounds to disbelieve the authenticity and accuracy of the documentation presented on behalf of Mr. Rafael Lima Dessart. In addition, this evaluation is based on standard scholarly and professional sources as referenced at the end of this document. Carnegie Evaluations LLC is not responsible for how this evaluation report will be used and is not responsible for damages resulting from such use of this report.

DISCUSSION OF MR. LIMA DESSART'S ACADEMICS

This credential evaluation is provided upon review of the degree certificates and transcripts awarded to Mr. Rafael Lima Dessart during the course of his academic career. An analysis of Mr. Lima Dessart's foreign educational courses for the *Geologo* (translated as Geologist), a *Curso de Informacoes Espaciais Georreferenciadas* (translated as Specialization course in Georeferenced Spatial Information), a *Mestre em Geologia* (translated as Master in Geology) from *Universidade do Vale do Rio dos Sinos* (translated as University of Vale do Rio dos Sinos), and a *Doutor em Recursos Hidricos e Saneamento Ambiental* (translated as Doctor in Water Resources and Environmental Sanitation) from *Universidade Federal do Rio Grande do Sul* (translated as Federal University of Rio Grande do Sul) forms the basis for the following evaluation.

Mr. Lima Dessart completed a Bachelor's degree in Geology from the University of Vale do Rio dos Sinos in December 2003. The University of Vale do Rio dos Sinos is an accredited institution of higher education in Sao Leopoldo, Brazil. Admission to this program requires graduation from the US equivalent of high school and competitive entrance examinations for admission and enrollment. Mr. Lima Dessart satisfactorily completed the academic course requirements required for a Bachelor's degree program. He majored in Geology and was awarded a *Geologo* from the institute.

This is a five-year undergraduate program of study that is equivalent to a degree of Bachelor of Science (B.S.) from an accredited institution of higher education in the United States. The academic criterion maintained by University of Vale do Rio dos Sinos is significantly similar to those parameters upheld by any other accredited colleges and universities in the United States.

The Bachelor's degree in Geology curriculum includes advanced bachelor's-level coursework and examinations in General Geology, Biology for Geologists, Anthropology, Mineralogy and Petrography, Paleontology, Micropaleontology, Sedimentology, Igneous Petrology, Stratigraphy, Structural Geology, Aerial Photogeology and Digital Cartography, Topography, Sedimentary Petrology, Metamorphic Petrology, Geographic Information Systems and Remote Sensing,

Historical Geology, Geophysics, Geostatistics, Economic Geology, Geotechnics, Climatology and Hydrology, Low-Temperature Geochemistry, Calculus, High-Temperature Geochemistry, Geodynamics, Hydrogeology, Coastal Environments, Structural Geology Applied to Mineral Deposits, and other related subjects.

Thereafter, Mr. Lima Dessart graduated with a Master's in Geology from the University of Vale do Rio dos Sinos in December 2009. University of Vale do Rio dos Sinos's Master's in Geology program requires graduation from Bachelor's level studies and competitive entrance examinations for admission and enrollment. Mr. Lima Dessart satisfactorily completed the academic course requirements for a Master's in Geology program. He majored in Sedimentary Geology and was awarded a *Mestre em Geologia* from the institute.

This is a two-year graduate program of study, which is equivalent to a Master of Science (MS) degree from an accredited institution of higher education in the United States. The *Mestre em Geologia* curriculum includes advanced graduate-level coursework and examinations in Special Topics in Environmental Management -Applied Geophysics, Clastic Terrigenous Depositional Systems, Transitional and Shallow Marine Depositional Systems, Sequence Stratigraphy, and other related subjects.

Thereafter, Mr. Lima Dessart completed a Specialization course in Georeferenced Spatial Information from the University of Vale do Rio dos Sinos in August 2013. Admission to this program requires graduation from Bachelor's level studies and competitive entrance examinations for admission and enrollment. Mr. Lima Dessart satisfactorily completed the academic course requirements required for a Specialization program. He majored in Georeferenced Spatial Information and was awarded a *Curso de Informacoes Espaciais Georreferenciadas* from the institute.

This is a one-year graduate program of study, which is substantially similar to the required coursework leading to completion of one year of Graduate-level studies from a regionally accredited University in the United States. The Specialization course in Georeferenced Spatial Information curriculum includes advanced graduate-level coursework and examinations in Applied Topography for Georeferencing, Geodetic Reference Systems, Methods and Measurements of Geodetic Positioning, Digital Cartography and Data for GIS, Cartographic Projections, Adjustment of Observations, Environmental Licensing and GIS Applications, Geoprocessing Applied to Urban Territorial Issues, Thesis: Precision of Coordinates Surveyed Using Different Methods and Equipment, and completed a thesis titled "Precision of Coordinates Surveyed using Different Methods and Equipment.

Thereafter, Mr. Lima Dessart graduated with a Doctorate in Water Resources and Environmental Sanitation from Federal University of Rio Grande do Sul in March 2022. Federal University of Rio Grande do Sul is an accredited institution of higher education in Porto Alegre, Brazil. Federal University of Rio Grande do Sul's Doctorate in Water Resources and Environmental Sanitation program requires graduation from Master level studies and competitive entrance examinations for admission and enrollment. Mr. Lima Dessart satisfactorily completed original evidence-based research, submitted a dissertation titled "Integration of Hydrogeological, Geophysical, and Structural Data in the Hydrogeological Investigation of the Crystalline Basement in the Municipality of Bagé, RS,," offering a significant new contribution in the field of Water Resources

and Environmental Sanitation and defended the same successfully through *viva voce* and was awarded a *Doutor em Recursos Hidricos e Saneamento Ambiental* from the institute.

Prior to this, Mr. Lima Dessart studied for a Doctorate in Geology in 2018 at the Federal University of Parana, which is an accredited institution of higher education in Curitiba, Brazil. Appropriate credits from this program have been transferred to his Doctorate in Water Resources and Environmental Sanitation at Federal University of Rio Grande do Sul. This is a program of advanced research that is substantially similar to the required coursework leading to the completion of a doctorate degree from a regionally accredited University in the United States. The coursework, comprehensive examinations, research work, dissertation submission, and its defense through *viva voce* required by the Federal University of Rio Grande do Sul are significantly similar to doctoral program requirements leading to a Doctor of Philosophy from an accredited institution of higher learning in the United States.

Upon reviewing Mr. Lima Dessart's academic history, it becomes apparent that Mr. Lima Dessart has satisfied the coursework requirements, which are substantially similar and equivalent to those required for the completion of a four-year Bachelor's Degree program, a Master of Science degree, One year graduate study program, and a Doctor of Philosophy at an accredited institution of higher education in the United States.

SUMMARY

On the basis of the academic reputations of University of Vale do Rio dos Sinos, and Federal University of Rio Grande do Sul, the nature and duration of the academic course work, and the grades attained in the courses, it is the judgment of Carnegie Evaluations LLC that Mr. Lima Dessart has attained the equivalent of a Bachelor of Science in Geology, Master of Science in Geological Sciences, One year of graduate study in Geographic Information Systems, and a Doctor of Philosophy in Water Resources from an accredited institution of higher education in the United States.

Carnegie Evaluations LLC represents this evaluation report to be an accurate and correct evaluation to the best of its knowledge and belief, pursuant to the requirements of the Citizenship and Immigration Services of the United States Department of Homeland Security. Carnegie Evaluations LLC does not represent that the documentation submitted to it by anyone for evaluation meets the evidentiary standards of any state or federal agency or any court. This evaluation report, as are all such reports provided by Carnegie Evaluations LLC, is advisory for the customer who requested it.

The foregoing evaluation of Mr. Lima Dessart has been reviewed and approved by me, Dr. Zach G. Zacharia, on August 22, 2025.

Sincerely,

A handwritten signature in black ink, appearing to read 'Zacharia', with a stylized flourish at the end.

Zach G. Zacharia, Ph.D.
Director, Carnegie Evaluations LLC.
Associate Professor of Supply Chain Management
Director, Lehigh Center for Supply Chain Research
Lehigh University

Evaluation Resources:

1. World Higher Education Database. International Association of Universities' Worldwide Database of Higher Education Institutions, Systems and Credentials. www.whed.net.
2. AACRAO EDGE. AACRAO Electronic Database for Global Education. <https://www.aacrao.org/edge>
3. Central Intelligence Agency (CIA). The World Factbook. <https://www.cia.gov/the-world-factbook/>
4. ENIC-NARIC. European Network of Information Centers in the European Region, National Academic Recognition Information Centers in the European Union. www.enic-naric.net.

Bio: Professor Zach G. Zacharia

I am the Interim Department Chair, Decision and Technology Analytics (DATA) Department, an Associate Professor of Supply Chain Management, and Director of the Center for Supply Chain Research Lehigh in the College of Business and Economics, Lehigh University, where I teach Graduate and Undergraduate courses in Supply Chain Operations Management and Logistics and Transportation. In addition, I am also a visiting Professor at the Indian Institute of Technology (IIT) in New Delhi, India. I graduated with a B.S. in Mechanical Engineering from the University of Calgary, an MBA from the University of Alberta, and a Ph.D. in Logistics with a minor in Marketing from the University of Tennessee. My current research interests include Collaboration/Competition within the Supply Chain, Supplier Satisfaction, and the Physical Internet.

Before joining Academia, I worked at the University of Tennessee, Center for Transportation Research, for six years as an Associate Director. I also worked at the Department of Transportation in Alberta, Canada, for ten years as an Equipment Engineer. I am a principal in BZS Consulting, which primarily focuses on teaching Supply Chain Operations Management and evaluating collaboration and procurement strategies across firms in a supply chain.

I have developed significant international contacts and collaborations with many affiliate schools in several countries in Europe, Asia, and South America. I have evaluated numerous portfolios of international students from countries around the world and have performed in-depth assessments of how these foreign courses are equated to corresponding courses in the United States.

I have 29 refereed publications, including 2 articles in the *Journal of Operations Management*, 8 articles in the *Journal of Business Logistics*, and articles in *Decision Sciences*, the *Journal of Supply Chain Management*, *Industrial Marketing Management*, *International Journal of Production Research*, *International Journal of Production and Operations Management*, *International Journal of Logistics Management*, *Journal of Retailing*, *Journal of Business and Industrial Marketing*, *Marketing Management*, *Supply Chain Management Review*, *Journal of International Technology and Information Management*, *Journal of Vehicle Design* and *Wall Street Journal*. As a member of a Supply Chain Research Group at the University of Tennessee, I co-authored a book titled “*Supply Chain Management*” (Sage Publications, December 2000). I also contributed a chapter on logistics service providers and new product development in the book titled *Managing Innovation: The New Competitive Edge for Logistics Service Providers*, Stephan M. Wagner ed., Kuehne Foundation Book Series (2007).

Among the awards that I have received are the DATA Department Service Award (2023), Staub Faculty Excellence Award (2013) from the College of Business, Lehigh University, Best Paper Finalist (2010) from the *Journal of Operations Management*, Best Paper Award (2007) from NARTS and Best Dissertation Proposal Award (2000) from University of Arkansas. As a member of a Supply Chain Research Group at the University of Tennessee, I coauthored a book titled *Supply Chain Management* (Sage Publications, December 2000).

A.**Biographical Information**

Zach G. Zacharia, Ph.D.
Interim Department Chair, Decision and Technology Analytics Department
Associate Professor Supply Chain Management
Director, Client Services, Carnegie Evaluations
Director, Center for Supply Chain Management Lehigh
Supply Chain Management Program Director
Department of Management, College of Business Administration and Economics
Lehigh University, 621 Taylor Street, Bethlehem, PA, 18015
Office: (610) 758-4433, Fax: (610) 758-6941
zgz208@lehigh.edu

EDUCATION

1996 - 2001	THE UNIVERSITY OF TENNESSEE	Knoxville, TN
	Doctor of Philosophy in Business Administration	
	• Major: Logistics, Minor: Marketing • Dissertation Title: <u>An Analysis of the Effect of Logistics Involvement in Cross-functional Integrated New Product Development Projects</u> (Advisor: Dr. John T. Mentzer)	
1988 – 1993	THE UNIVERSITY OF ALBERTA	Edmonton, AB
	Master of Business Administration	
1981 - 1985	THE UNIVERSITY OF CALGARY	Calgary, AB
	Bachelor of Science, Mechanical Engineering	
1980 - 1981	RED DEER COLLEGE	Red Deer, AB
	Bachelor of Science	
1979 – 1980	THE UNIVERSITY OF ALBERTA	Edmonton, AB
	Bachelor of Science	

WORK EXPERIENCE SUMMARY

2016 – Present, Director, Center for Supply Chain Research Lehigh
2013 – Present, Associate Professor – Lehigh University
2008 – 2013 Assistant Professor – Lehigh University
2001 – 2008 Assistant Professor - Texas Christian University
1999 – 2001 Associate Director – Transportation Center, University of Tennessee
1997 – 1999 Assistant Director - Transportation Center, University of Tennessee
1995 – 1997 Senior Research Associate – University of Tennessee
1989 – 1995 Research Engineer – R&D Branch, Alberta Transportation & Utilities
1985 – 1989 Equipment Engineer – Alberta Transportation & Utilities

CONSULTING PROJECTS, EXECUTIVE EDUCATION

2023 Expert Witness – Real Estate Company, Bethlehem

2023	Ecofriendly Behavior on Personal Transportation, AFIT, Dalton
2020	Financial Flow in SC, DiCentral, Houston
2020	Expert Witness – Real Estate Company, Bethlehem
2020	Lehigh University, Executive Education, Bethlehem
2019	Lehigh University, Executive Education, Bethlehem
2019	SC Collaboration in Drop Ship, DiCentral, Houston
2018	Coopetition in the Defense Industry, AFIT, Dayton
2018	IIT New Delhi, Executive Education, Delhi, India
2017	Lehigh University, Executive Education, Bethlehem
2016	IIT Madras, Global Initiative of Academic Networks, Chennai, India
2015	Morrison Executive Education, Santo Domingo, Dominican Republic
2014	CSCMP Executive Seminar, Bogota, Columbia
2012	Supply Chain Management Simulation, WAM Systems, Philadelphia
2010	Supply Chain Management Overview, Universidad de Piura, Peru
2007	Procurement of Capability Guidelines, Lockheed Martin Aeronautics
2002	Truck Safety Recommendations, University of Tennessee

B. Publications and Creative Activities

EDITORIAL ROLES (6)

- Senior Editor- *International Journal of Logistics Management* (2018- current)
- Senior Editor- *Journal of Business Logistics* (2016- current)
- Special Issue Editor-(Physical Internet) - *Journal of Business Logistics* (2018-2020)
- Special Issue Editor- (Inter-Disciplinary Research) *Journal of Business Logistics* (2014-2015)
- Editorial Board Member – *Journal of Operations Management*
- Editorial Board Member –*Transportation Journal*
- Editorial Board Member – *Journal of Supply Chain Management*

DISSERTATION COMMITTEE MEMBER (3)

- Nathaniel R- *The American School As a Microcosm for the National Criminal and Legal Landscape: Two Case Studies* – Lehigh University, 2024
- Michael Plasch - *Supply Chain Collaboration - Investigating Motives, Drivers and Success Factors* – Johannes Kepler University Linz, Austria, 2021

- Kimberly K. Whitehead – *It's A Matter of Give And Take: Exploring The Role of Knowledge Transfer Within Supply Chain Collaboration* - University of Texas at Arlington, USA, 2014

BOOK CHAPTERS (5)

- **Zacharia, Zach G.** "Is there a role for Logistics Service Providers in New Product Development?" *Managing Innovation: The New Competitive Edge for Logistics Service Providers*, Stephan M. Wagner ed., Kuehne Foundation Book Series. Ch 7, 2008.
- Mentzer, John T., William J. DeWitt, James S. Keebler, Soonhong Min, Nancy W. Nix, Carlo D. Smith, and **Zach G. Zacharia**, "What is Supply Chain Management" *Supply Chain Management*, Thousand Oaks, CA: Sage Publications, Ch.1, 2000.
- **Zacharia, Zach G.**, "R&D and New Product Development in Supply Chain Management" *Supply Chain Management*, John T. Mentzer ed., Thousand Oaks, CA: Sage Publications, Ch.6, 2000.
- **Zacharia, Zach G.**, "The Evolution and Growth of Production in Supply Chain Management" *Supply Chain Management*, John T. Mentzer ed., Thousand Oaks, CA: Sage Publications, Ch.8, 2000.
- **Zacharia, Zach G.**, "The Evolution and Growth of Information Systems in Supply Chain Management" *Supply Chain Management*, John T. Mentzer ed., Thousand Oaks, CA: Sage Publications, Ch.11, 2000.

REFEREED PUBLICATIONS (30)

30. Gopal Kumar, **Zach Zacharia**, Mohit Goswami (2024) "Understanding interdependency of sustainability dimensions from the lens of collaborative relationship conditions: Findings from an emerging economy" *International Journal of Logistics Management*, Vol. 35, No. 4, 1277-1302
29. Varun Jain, Usha Mohan, **Zach G. Zacharia**, Nada R. Sanders (2022) "Improving patient satisfaction and outpatient diagnostic center efficiency using novel online real-time scheduling" *Operations Research for Health Care*, 32, 1-17, 100338
28. Saif Mir, Misty Blessley, **Zach Zacharia**, John Aloysius (2022) "Mending Fences in the Buyer-Supplier Relationship: The Role of Justice in Relationship Restoration" *Journal of Supply Chain Management*. Vol. 58, No. 3, 23 – 46.
27. Dev, Navin; Ravi Shankar; **Zach Zacharia**, Sanjeev Swami, (2021) "Supply chain resilience for managing the ripple effect in Industry 4.0 for green product

- diffusion” *International Journal of Physical Distribution & Logistics Management* Vol. 51 No. 8, 897-930.
26. Ballot, Eric, Benoit Montreuil, **Zach G. Zacharia**, (2021) “Physical Internet: First Results and Next Challenges” *Journal of Business Logistics* Vol 42 No. 1, 1 – 7.
 25. Treiblmaier, Horst, Kristijan Mirkovski, Paul B. Lowry, **Zach G. Zacharia**, (2020) “The Physical Internet as a New Supply Chain Paradigm: A Systematic Literature Review and a Comprehensive Framework” *International Journal of Logistics Management* Vol. 31 No. 2, 239-287.
 24. **Zach G. Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger (2019) “The Emerging Role of Coopetition Within Inter-Firm Relationships” *International Journal of Logistics Management* Vol. 30, No. 2, 414-437.
 23. Soonhong Min, **Zach G. Zacharia**, Carlo D. Smith (2019) “Defining Supply Chain Management: In the Past, Present and Future” *Journal of Business Logistics* Vol. 40 No.1, 44-55.
 22. Kimberly Whitehead, **Zach Zacharia**, Edmund Prater (2019) “Investigating the Role of Knowledge Transfer in Supply Chain Collaboration” *International Journal of Logistics Management*” Vol. 30, No. 1, 284-302.
 21. Misty Blessly, Saif Mir, **Zach G. Zacharia**, John Aloysius (2018) “Breaching Relational Obligations In A Buyer-Supplier Relationship: Feelings Of Violation, Fairness Perceptions And Supplier Switching” *Industrial Marketing Management* Vol. 74, Oct, 215-226.
 20. Faraz, Alireza, Nada R. Sanders, **Zach G. Zacharia**, Markus Gerschberger (2018) “Monitoring Type B Buyer-Supplier Relationships” *International Journal of Production Research* Vol. 56, No. 18, 6225-6239.
 19. Whitehead, Kimberly, **Zach G. Zacharia**, Edmund Prater, (2016) “Absorptive Capacity Versus Distributive Capability: The Asymmetry of Knowledge Transfer” *International Journal of Operations and Production Management* Vol. 36, No 10, 1308-1332.
 18. Nada R. Sanders, Brian R. Fugate, **Zach G. Zacharia**, (2016) “Interdisciplinary Research In SCM: Through the Lens of The Behavioral Theory of The Firm” *Journal of Business Logistics* Vol. 37, No 2, 107-112.
 17. Nancy W. Nix, **Zach G. Zacharia**, (2014) “The Impact of Collaborative Engagement on Knowledge and Performance Gains in Episodic Collaborations” *International Journal of Logistics Management* Vol. 25, No 2, 245-269.

16. **Zach G. Zacharia**, Nada R. Sanders, Brian R. Fugate (2014) “The Evolving Role of Disciplines Within Supply Chain Management” *Journal of Supply Chain Management* Vol. 50, No 1, 73-88.
15. Nada R. Sanders, **Zach G. Zacharia**, Brian R. Fugate (2013) “The Interdisciplinary Future of Supply Chain Management Research” *Decision Sciences* Vol. 44, No. 3, 413-429.
14. Geoffrey T. Stewart, **Zach G. Zacharia**, Andrew B. Artis (2012) “Leveraging Relationship Orientation and its Impact on Relationship Outcomes” *Journal of Business and Industrial Marketing*, Vol. 27, No. 8, 644-658.
13. **Zach G. Zacharia**, Nancy W. Nix, Robert F. Lusch (2011) “Capabilities that Enhance Outcomes of an Episodic Supply Chain Collaboration” *Journal of Operations Management*, Vol. 29, No. 6, 591-603.
12. **Zach G. Zacharia**, Nada R. Sanders, Nancy W. Nix (2011) “The Emerging Role of the Third-Party Logistics Provider (3PL) as a Supply Chain Orchestrator” *Journal of Business Logistics*, Vol. 32, No. 1, 40-54.
11. Danny Lanier, Jr., William F. Wempe, **Zach G. Zacharia**, (2010) “Concentrated Supply Chain Membership and Financial Performance: Chain- and Firm-Level Perspectives” *Journal of Operations Management*, Vol.28, No.1, 1-16.
10. **Zach G. Zacharia**, Chad W. Autry, David S. Preston, Charles W. Lamb, (2009) “IT Alignment with Business Strategies in a Healthcare Organizations: An Empirical Analysis” *Journal of International Technology and Information Management*, Vol. 18, No. 3/4, 477-494.
9. **Zach G. Zacharia**, Nancy W. Nix and Robert F. Lusch, (2009) “An Analysis of Supply Chain Collaborations and Their Effect on Performance” *Journal of Business Logistics*, Vol. 30, No. 2, 101-123.
8. Chad W. Autry, **Zach G. Zacharia** and Charles W. Lamb, (2008) “A Logistics Strategy Taxonomy” *Journal of Business Logistics*, Vol. 29. No. 2, 53-74.
7. Nancy W. Nix, Robert F. Lusch, **Zach G. Zacharia**, and Wesley R. Bridges, (2008) "Competent Collaborations" *Marketing Management*, Vol. 17, No. 2, 18-24.
6. **Zach G. Zacharia** and John T. Mentzer (2007) “The Role of Logistics in New Product Development,” *Journal of Business Logistics*, Vol. 28, No. 1, 83-110.
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 - b. *The ICFAI Journal of Supply Chain Management*, Vol. 3, No. 1, 53-72, (2006).
4. Mentzer, John T., William DeWitt, James S. Keebler, Soonhong Min, Nancy W. Nix, Carlo D. Smith, **Zach G. Zacharia** (2001) "Defining Supply Chain Management," *Journal of Business Logistics*, Vol. 22, No. 2, 1-25.
 - c. Reprinted in:
 - d. *Logistique and Management*, Vol. 9, No. 2, 3-19, (2001).
3. **Zacharia, Zach G.**, John E. Tidwell and Stephen H. Richards (2001) "An Overview of Truck and Bus Safety:1999 Knoxville Symposium," *Journal of Vehicle Design*, Vol. 26, No. 4, 442-453.
2. Mentzer, John T., Min Soonhong and **Zach G. Zacharia** (2000) "The Nature of Interfirm Partnering in Supply Chain Management," *Journal of Retailing*, Winter, Vol. 76, Issue 4, 549-568.
1. **Zacharia, Zach G.** and Bart Jennings (1998) "The Use of Active Participation and Group Competition to Facilitate Training and Technology Transfer for Adult Learners," *Transportation Research Record*, No. 1637, 13-18.

PAPERS UNDER REVIEW (6)

- Zach G. Zacharia, Scott C. Ellis, Saif Mir, Robert J. Trent - "Gaining Advantage Through Social Exchange: How and Under What Conditions" (Revise and Resubmit)
- **Saif Mir, Timothy W. Breitbach, Zach G. Zacharia, Benjamin T. Hazen** "Supplier Cultivation: An Accelerator Approach to Ecosystem Innovation" (Under Review)
- Zach Zacharia, Robert Wiedmer, Kimberly Whitehead "Competing Governance Mechanisms in Buyer-Supplier Relationships" (Under Review)
- Zach Zacharia, Annibal Sodero "Drop Shipping and its Effects on the New E-Commerce Retail Paradigm" (Under Review)
- Michael Plasch, Zach Zacharia, "Voluntary or involuntary coopetition: Perspectives on innovation in supply chain network relationships" (Under Review)
- **Saif Mir, Dina Ribbinik, Saurabh Bansal, Philip Coles, Zach G. Zacharia,** "The Impact of Ecosystem Shocks on the Operational Performance of

Worker-heavy Systems in the Agricultural Domain: The Role of Cognitive Load” (Under Review)

NON - REFEREED PUBLICATIONS (5)

5. **Zach G. Zacharia** (2020), What Every CFO Needs to Know about Supply Chains
4. **Zach G. Zacharia** (2019), Supply Chain Collaboration in Transformative Vertical Industries (Implications of Omnichannel and Drop Shipping)
3. Robert J. Trent, **Zach G. Zacharia**, (2012) “The Wisdom of Becoming a Preferred Customer,” *Supply Chain Management Review* Vol. 16, No. 6, 10-18.
2. Nix, W. Nancy, Robert F. Lusch, **Zach G. Zacharia**, and Wesley R. Bridges, (2007) "The Hand That Feeds You – What Makes Some Collaborations with Suppliers Succeed – When So Many Fail?" *The Journal Report- Business Insight* (A Joint Venture with MIT *Sloan Management Review* and *Wall Street Journal*), Dow Jones and Company
1. **Zacharia, Zach G.** (1994) “Expert System Simplifies Bridge Paint Maintenance Programs,” *Materials Performance*, June, 25 - 28.

CONFERENCE PROCEEDINGS (19)

19. Ujjwal Kumar, Iana Shaheen, Zach Zacharia, Ravi Shankar (2024) “Competition and Cooperation in Humanitarian Operations, Academy of Management Conference, Chicago, IL, August 13.
18. **Zach Zacharia**, Timothy Breitbach, Ben Hazen, Saif Mir (2019) “Utilizing Accelerator Programs for adopting Innovations to Encourage the Adoption” *CSCMP Conference*, Anaheim, CA, September 15.
17. **Zach Zacharia**, Timothy Breitbach, Ben Hazen, Saif Mir (2018) “Utilizing Accelerator Programs to Encourage the Adoption of New Innovations in Large Organizations” *DSI Conference*, Chicago, IL, November 17.
16. Robert Weidmer, **Zach Zacharia**, (2018) “Competing Governance Mechanisms in Buyer-Supplier Relationships” *DSI Conference*, Chicago, IL, November 16.
15. **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger (2017) “The Role of Coopetition in Buyer Supplier Relationships” *DSI Conference*, Washington, DC, November 18.
14. **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger (2017) “Understanding the Antecedents and Outcomes of Coopetition” *CSCMP Academic Research Conference*, Atlanta, Georgia, September 24.

13. **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger (2017) “The Evolving Role of Coopetition within the Supply Chain” *CSCMP European Research Seminar*, Barcelona, Spain, May 19.
12. Gouda, Sirish, **Zach Zacharia**, Haritha Saranga (2016) “Linking New Forms of Work Organization and External Integration: Mediating role of cross functional collaboration” *DSI Conference*, Austin, Texas, November 21.
11. Blessley, Misty, Saif Mir,^[1]_[SEP] **Zacharia, Zach G.**, John Aloysius (2016) “The role of apologies following transgressions in buyer-supplier relationships.” *CSCMP Educator Conference*, Orlando, Florida, September 25.
10. Blessley, Misty, Saif Mir,^[1]_[SEP] **Zacharia, Zach G.**, John Aloysius (2016) “The role of transactional and relational psychological contract breach in supplier switching behavior.” *CSCMP European Research Seminar*, Vienna, Austria, May 13.
9. Blessley, Misty, Saif Mir,^[1]_[SEP] **Zacharia, Zach G.**, John Aloysius (2015) “Should I stay or should I go? The role of transactional and relational psychological contract breach in supplier switching behavior.” *CSCMP Educator Conference*, San Diego, California, September 27.
8. **Zacharia, Zach G.**, Nancy W. Nix and Robert F. Lusch (2007) “Supply Chain Collaborations: Project Performance and Business Performance” *18th North American Teaching and Research Conference*, Tempe, Arizona, March 29-31.
7. **Zacharia, Zach G.** (2005) “Team Based Learning in MBA and Undergraduate Supply Chain Management Classes” *16th North American Teaching and Research Conference*, Tempe, Arizona, March 17-19.
6. Nix, Nancy W., **Zach G. Zacharia** and Robert F. Lusch (2005) “Keys to Effective Supply Chain Collaboration” *16th North American Teaching and Research Conference*, Tempe, Arizona, March 17-19.
5. **Zacharia, Zach G.** and Marc E. Ruzicka (2003) “Experiential Learning: Live Business Cases in MBA Supply Management and Logistics Classes” *14th North American Teaching and Research Conference*, Tempe, Arizona , March 21- 23.
4. **Zacharia, Zach G** (2000) “The Evolution and Growth of Production in the Supply Chain”, *Society for Marketing Advances Conference*, Orlando, Florida, November 8-10.
3. **Zacharia, Zach G.**, John E. Tidwell and Stephen H. Richards (2000) “An Overview of Truck and Bus Safety:1999 Knoxville Symposium,” *4th International Fatigue Management Conference*, Perth, Australia, March 19-2.
2. **Zacharia, Zach G.** and Bart Jennings (1998), "The Use of Active Participation and Group Competition to Facilitate Training and Technology Transfer for Adult Learners," *Transportation Research Board Conference Proceedings*, Washington, District of Columbia, January 4-8.

1. **Zacharia, Zach G.** (1992), “Bridge Paint Expert Systems”, *Second International Organization for Economic Cooperation and Development (OECD) Conference on Knowledge Based Expert Systems in Transportation*, Montreal, Canada, April 3-7.

PODCASTS (18)

- **Zacharia, Zach G.** (2024), “Why Cyber security is top threat in Supply Chain” <https://business.lehigh.edu/blog/2024/zach-zacharia-why-cybersecurity-top-threat-supply-chain - Jan 2024>
- **Zacharia, Zach G.** (2023), “Top 3rd Quarter Risks in Spplly Chain Why Cyber security is top threat in Supply Chain” <https://business.lehigh.edu/blog/2023/zach-zacharia-top-3rd-quarter-risks-supply-chain> June 2023
- **Zacharia, Zach G.** (2023), “Biggest Risk in Supply Chain” <https://www2.lehigh.edu/news/cybersecurity-tops-supply-chain-managers-list-of-biggest-risks-in-2nd-quarter - March 2023>
- **Zacharia, Zach G.** (2023), “Biggest Threats in Global Supply Chain” <https://business.lehigh.edu/blog/2023/zach-zacharia-biggest-threats-global-supply-chain - Jan 2023>
- **Zacharia, Zach G.** (2022), “Supply Chain Managers are concerned about Economic Risk” <https://www2.lehigh.edu/news/supply-chain-managers-concerned-about-economic-risks-and-cybersecurity-in-1st-quarter-of-2023> (December)
- **Zacharia, Zach G.** (2022), “Supply Chain Risk Management Index All-Time low” <https://www2.lehigh.edu/news/lehigh-business-supply-chain-risk-management-index-at-all-time-low> (September)
- **Zacharia, Zach G.** (2022), “Supply Chain Risks 3rd Quarter” <https://business.lehigh.edu/blog/2022/zach-zacharia-supply-chain-risks-3rd-quarter-2022> (July)
- **Zacharia, Zach G.** (2022), “Supply Risks Threaten 2nd Quarter” <https://www2.lehigh.edu/news/transportation-risk-threatens-supply-chain-in-2nd-quarter> (March)
- **Zacharia, Zach G.** (2021), “What’s happening in Supply Chain now” <https://business.lehigh.edu/blog/2021/zach-zacharia-whats-happening-supply-chain-now> - (December)

- **Zacharia, Zach G.** (2021), “Number one Supply Chain Threat – Transportation Disruption” <https://business.lehigh.edu/news/2021/number-one-supply-chain-threat-transportation-disruption> (October)
- **Zacharia, Zach G.** (2021), “Red Flags in the Supply Chain” <https://business.lehigh.edu/blog/2021/zach-zacharia-red-flags-supply-chain> (July 2nd)
- **Zacharia, Zach G.** (2021), “Disruptive New Paradigm of the Physical Internet” <https://business.lehigh.edu/blog/2021/zach-zacharia-disruptive-new-paradigm-physical-internet> (June 3rd)
- **Zacharia, Zach G.** (2021), “Red Flags in the Supply Chain” <https://business.lehigh.edu/blog/2021/zach-zacharia-red-flags-supply-chain> (July 2nd)
- **Zacharia, Zach G.** (2021), “Red Flags in the Supply Chain” <https://business.lehigh.edu/blog/2021/zach-zacharia-red-flags-supply-chain> (July 2nd)
- **Zacharia, Zach G.** (2021), “Disruptive New Paradigm of the Physical Internet” <https://business.lehigh.edu/blog/2021/zach-zacharia-disruptive-new-paradigm-physical-internet> (June 3rd)
- **Zacharia, Zach G.** (2018), “Dealing with Disruptive Innovations in the Supply Chain” (<https://cbe.lehigh.edu/blog/posts/dealing-disruptive-innovations-supply-chain>) (October 24)
- **Zacharia, Zach G.** (2017), “Drop Shipping: A New Opportunity for Retailers and Suppliers” (<https://cbe.lehigh.edu/blog/posts/drop-shipping-new-opportunity-retailers-and-suppliers>) December 11
- **Zacharia, Zach G.** (2017), “What You Need to Know About the Physical Internet” (<https://cbe.lehigh.edu/blog/posts/what-you-need-know-about-physical-internet>) (March 14) (Ranked 4th in Google Search for Physical Internet)

WORKING PAPERS (4)

- Zach Zacharia, Michael Plasch, Markus Gerschberger “Explorative and exploitative motives for coopetition” *Target: International Journal of Production Economics*

- Zach Zacharia, Cedric Heuchenne, Nada Sanders, Faraz, Alireza “Comparison of populations based on binary characteristics in the presence of non-response” *Target: Production Operations Management Journal*
- Zach Zacharia, Iana Shaheen, Ravi Shankar, Ujjwal Kumar, “Competition and Cooperation in Humanitarian Operations” *Target: Production Operations Management Journal*
- Zach Zacharia, Saif Mir, Dina Ribbnik, Saurabh Bansal, Philip Coles “Shock and Worker Productivity- Evidence from a US Agricultural Sector” *Target: Production Operations Management Journal*

27.Honors and Awards (25)

2023	DATA Department Service Award, Lehigh University
2018	Teaching Innovation Grant, CBE, Lehigh University
2018	Senior Associate Editor for <i>International Journal of Logistics Management</i>
2017	Best Reviewer Award <i>Journal of Business Logistics</i>
2016	Editor for <i>Journal of Business Logistics News</i>
2016	Associate Editor for <i>Production Operations Management</i> Special Issue
2015	Associate Editor for <i>Journal of Business Logistics</i>
2015	Member of the <i>Transportation Journal</i> Editorial Board
2013	Robert and Christine Staub Faculty Excellence Award
2012	Member of the <i>Journal of Supply Chain Management</i> Editorial Board
2011	Best Paper Finalist for 2010 (<i>Journal of Operations Management</i>)
2011	Best Paper Award (European DSI Conference)
2010-2011	Council of Supply Chain Management Professional Educator Conference Chair
2010	Member of the <i>Journal of Operations Management</i> Editorial Board
2010	Member of the <i>Journal of Business Logistics</i> Editorial Board
2009-2010	Supply Chain Management Educator Conference Proceedings Editor
2007-2008	Council of Supply Chain Management Case Editor
2007	Best Paper Award (<i>NARTS-ISM Conference</i>)
2006	Tied for highest SPOT (Student Perception of Teaching) score
2005	Highest SPOT (Student Perception of Teaching) in INSC department
2000	Doctoral Dissertation Proposal Award (<i>University of Arkansas</i>)
2000	Outstanding Student Paper Award (<i>Society for Marketing Advances</i>)
2000	Finalist (<i>ISBM Doctoral Dissertation Award</i>)
2000	Scholarly Research Grant Recipient (<i>University of Tennessee</i>)
1999, 1997	Fellow (<i>Council of Logistics Management Doctoral Symposium</i>)

28. Research Funding (16)

2019	DiCentral – SCM and Financial Flow Research \$20,000
2019	Ben Franklin Technology Partners and ESPI \$20,000
2018	AFIT – Managing Customer Driven Coopettition Projects \$25,000
2017	DiCentral – Drop Shipment Research \$20,000
2014-2015	International Travel Grant - One of 5 recipients selected across the entire University \$5000
2011	Faculty Research Grant – Lehigh University (Principal Investigator), Catherine Ridings (Lehigh University) “ Does investment in Supply Chain Management and Information Technology provide value for micro firms?” \$4500
2009	Summer Research Grant – College of Business and Economics, Lehigh University (Principal Investigator), Nada R. Sanders (Lehigh University, Brian S. Fugate (Colorado State University) “ <i>State of Supply Chain Management: A Visionary Perspective</i> ” \$3000
2002-2007	Charles Tandy American Enterprise Center Faculty Research Award (<i>Texas Christian University</i>) (\$10,000/yr)
2003, 05, 07	Junior Faculty Research Grant (<i>Institute of Supply Management</i>) (\$750/yr)
2005	Research Center for Teaching Excellence, Faculty Fellow Grant (<i>Texas Christian University</i>) (\$2500)

F. Scholarly Presentations (87)

- **Zach Zacharia**, (2023) “Identifying and Ranking Supply Chain Risks” *DSI Conference*, Atlanta, GA, November 20.
- Michael Plasch, **Zach Zacharia**, (2023) “Supply chain visibility in a multi-partner collaboration for distribution logistics – A secondary data research approach” Euroama Conference, Brussels, July 3rd
- Michael Plasch, **Zach Zacharia**, (2023) “Voluntary or involuntary: Perspectives on coopetition in dyadic and triadic supply chain relationships in the light of balance theory” Euroama Conference, Brussels, July 3rd
- **Zach Zacharia**, (2023) “Supply Chain Collaboration and Coopetition” *World Class Supply Chain Summit*, Waterloo, Ontario, Canada, May 3rd
- Saif Mir, **Zach Zacharia**, (2022) “Risks in Procurement and Sourcing” DSI Conference Houston, November 21
- Annibal Sodero, **Zach Zacharia**, (2022) “Antecedents and outcomes of drop-shipping adoption in the retail supply chain” Euroama Conference, Berlin, July 3rd

- Zach Zacharia, (2022) “Identifying and Ranking Supply Chain Risks” WDSI Conference, Waikoloa, HI, April 7.
- Zach Zacharia, (2021) “Writing a publishable dissertation” CSCMP Doctoral Consortium, Atlanta, GA, Sep 20.
- Zacharia, **Zach G.**, “*Supply Chain Collaboration in Transformative Vertical Industries*” Retail Value Chain Federation Conference, Teaneck, New Jersey, May 6, 2019
- **Zacharia, Zach G.**, “*Theoretical and Conceptual Foundations of Supply Chain Management*” PhD Research Seminar, Indian Institute of Technology, New Delhi, January India, January 25, 2018.
- **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger “*The Role of Coopetition in Buyer Supplier Relationships*” DSI Conference, Washington, DC, November 18, 2017
- **Zacharia, Zach G.**, “*Utilizing Drop Shipment to Improve Your Bottom Line*” Retail Value Chain Federation Conference, Phoenix, Arizona, November 6, 2017
- **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger “*Understanding the Antecedents and Outcomes of Coopetition*” CSCMP Academic Research Conference, Atlanta, Georgia, September 24, 2017
- **Zacharia, Zach G.**, “*Complexity in Supply Chain Management*” PhD Research Seminar, Atlanta, Georgia, September 23, 2017
- **Zacharia, Zach G.**, “*Coopetition Research*” PhD Research Seminar, Atlanta, September 22, 2017
- **Zacharia, Zach G.**, “*Buyer Supplier Relationships*” PhD Research Seminar, Atlanta, September 21, 2017
- **Zacharia, Zach G.**, “*Publishing Research in American Supply Chain Journals*” Indian Institute of Technology, New Delhi, India, July 21, 2017.
- **Zacharia, Zach G.**, “*Transforming Traditional Networks Through the Use of Collaborative Environments*” Supply Chain Leaders in Action Conference, Naples, Florida June 5, 2017
- **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger (2017) “*The Evolving Role of Coopetition within the Supply Chain*” CSCMP European Research Seminar, Barcelona, Spain, May 19.

- **Zacharia, Zach G.**, “*Logistics PhD programs in the US panel session*” Logistics Doctoral Symposium, Auburn University, Auburn, February 24, 2017.
- **Zacharia, Zach G.**, “*A Research Journey*” Indian Institute of Technology, Trichy, India, February 6, 2017.
- **Zacharia, Zach G.**, “*Orientation and Firm Infrastructure*” PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria January 12, 2017
- **Zacharia, Zach G.**, “*Strategy*” PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria January 11, 2017
- **Zacharia, Zach G.**, “*Conceptual Foundations from Procurement and Operations*” PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria January 10, 2017
- **Zacharia, Zach G.**, “*Conceptual Foundations from Marketing and Logistics*” PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria January 9, 2017
- **Zacharia, Zach G.**, “*Theoretical and Conceptual Foundations of Supply Chain Management*” PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria August 10, 2016
- **Zacharia, Zach G.**, “*Philosophy of Science*” PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria August 9, 2016
- **Zacharia, Zach G.**, “*Conceptual Foundations of Marketing*” PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria August 8, 2016
- **Zacharia, Zach G.**, “*Conceptual Foundations of Operations*” PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria August 10, 2016
- Gouda, Sirish, **Zach Zacharia**, Haritha Saranga (2016) “Linking New Forms of Work Organization and External Integration: Mediating role of cross functional collaboration” *DSI Conference*, Austin, Texas, November 21.
- Blessley, Misty, Saif Mir,^[SEP] **Zacharia, Zach G.**, John Aloysius (2016) “The role of apologies following transgressions in buyer-supplier relationships.” *CSCMP Educator Conference*, Orlando, Florida, September 25.
- **Zacharia, Zach G.**, “*Increasing Efficiency and Reducing Cost within a Supply Chain*” Indian Institute of Technology, Madras, India, June 13 2016.

- Blessley, Misty, Saif Mir,^[SEP]**Zacharia, Zach G.**, John Aloysius (2016) “The role of transactional and relational psychological contract breach in supplier switching behavior.” *CSCMP European Research Seminar*, Vienna, Austria, May 13.
- Bleasley, Misty, Mir, Saif, **Zacharia, Zach G.**, Aloysius, John “ *Should I stay or should I go? The role of transactional and relational psychological contract breach in supplier switching behavior*” Council of Supply Chain Management Educator Conference, San Diego, September 27, 2015.
- **Zacharia, Zach G.**, “*Qualitative and Quantitative Research Paths in SCM*” , University of Arkansas, Fayetteville, Arkansas Feb 27, 2015.
- **Zacharia, Zach G.**, “*Publishing Research in American Supply Chain Journals*” Indian Institute of Management, Bangalore, India, January 13, 2015.
- **Zacharia, Zach G.**, Scott Ellis, Robert J. Trent “*Gaining Advantage Through Social Exchange: How and Under What Conditions*” Production Operation Management Conference, Atlanta, Georgia, May 10, 2014.
- Ellis, Scott, **Zacharia, Zach G.**, Jae-Young Oh “*The Role of Functional Congruence in Cross-Functional and Inter-organizational Collaboration*” Decision Sciences Institute Conference, Baltimore, Maryland, November 19, 2013.
- **Zacharia, Zach G.**, “*Supply Chain Management, Collaboration and their Role Across Businesses and People*” Congress of Latin American Engineering Students, Lima, Peru, October 29, 2013.
- **Zacharia, Zach G.**, Scott Ellis, “*Antecedents to Buyer-Engineer Knowledge Transfer*” Production Operation Management Conference, Denver, Colorado, May 4, 2013.
- **Zacharia, Zach G.**, “*Balancing Effective Research and Teaching*” – Invited Panel Presentation, Council of Supply Chain Management Doctoral Symposium, Atlanta, Georgia, October 1, 2012.
- **Zacharia, Zach G.**, “*What are some of the Factors That Affect the Relationship Between Cross Functional New Product Development and New Product Project Performance?*” Decision Sciences Institute Conference, Boston, Massachusetts, November 22, 2011.
- **Zacharia, Zach G.**, “*Supply Chain Security - An Academic Discussion and Future Research*” Invited Panel Presentation, Decision Sciences Institute Conference, Boston, Massachusetts, November 21, 2011.

- **Zacharia, Zach G.**, “*Conference Chairperson Opening Remarks*” Council of Supply Chain Management Educator Conference, Philadelphia, Pennsylvania, October 2, 2011.
- **Zacharia, Zach G.**, William F. Wempe William and Danny Lanier, Jr. “*Concentrated Supply Chain Membership and Financial Performance: Chain- and Firm-Level Perspectives*” Academy of Management Conference, San Antonio, Texas, August 12 – August 17, 2011.
- **Zacharia, Zach G.** and Catherine M. Ridings “*Does investment in Supply Chain Management and Information Technology provide value for micro firms?*” Production Operations Management Conference, Reno, Nevada, April 28-May 1, 2011.
- **Zacharia, Zach G.** and Robert J. Trent “*Supplier Satisfaction and Innovation Sharing*” Decision Sciences Institute Conference, San Diego, November 20-23, 2010.
- Christoph Bode, Stephan M. Wagner and **Zacharia, Zach G.**, “*The Effect of Cooperation, Supplier Development, and Relationship-Specific Investments on Suppliers' Willingness to Share Innovation*” Decision Sciences Institute Conference, San Diego, November 20-23, 2010.
- **Zacharia, Zach G.** “*Personal Career Development in Academia: What now and How*” Council of Supply Chain Management Professionals Doctoral Symposium, San Diego, September 27, 2010.
- **Zacharia, Zach G.** “*Supply Chain Management Overview*” Executive MBA Program, Universidad de Piura, Piura, Peru, June 12, 2010.
- **Zacharia, Zach G.** “*Supply Chain Management Collaboration Strategies*” CSCMP Roundtable, Lima, Peru, June 11, 2010.
- **Zacharia, Zach G.** and John R. MacDonald “*Are differences in Risk Planning Significant?*” Production and Operations Management Conference, Vancouver, Canada, May 7-10, 2010.
- **Zacharia, Zach G.** and Robert J. Trent “*Supplier Satisfaction – How does it matter?*” Production and Operations Management Conference, Vancouver, Canada, May 7-10, 2010.
- **Zacharia, Zach G.**, Nancy W. Nix, and Robert F. Lusch “*The Moderating Role of Absorptive Capability and Collaborative Communication in Organizational Learning*” 19th North American Teaching and Research Conference, Tempe, Arizona, March 11-12, 2010

- **Zacharia, Zach G.** and John R. MacDonald “*Risk Planning: Is it of Value*” Decision Sciences Institute Conference, New Orleans, LA, November 17, 2009.
- **Zacharia, Zach G.** “*When Should New Product Development Managers Consider Distribution Logistics*” Decision Sciences Institute Conference, New Orleans, LA, November 15, 2009.
- John R. MacDonald and **Zacharia, Zach G.** “*Risk and Disruption Management: The Impact of Behavioral Interference*” Behavioral Operations Conference, Syracuse, NY, June 26, 2009.
- **Zacharia, Zach G.**, Nancy W. Nix, and Robert F. Lusch “*The Moderating Role of Absorptive Capability and Collaborative Communication in Organizational Learning*” Production and Operation Management Conference, Orlando, FL, May 2, 2009.
- **Zacharia, Zach G.**, Nancy W. Nix and Robert F. Lusch “Supply Chain Collaborations: Project Performance and Business Performance” *18th North American Teaching and Research Conference*, Tempe, Arizona, March 29-31. (2007)
- **Zacharia, Zach G.**, Nancy W. Nix, and Robert F. Lusch “*The Moderating Role of Absorptive Capability and Collaborative Communication in Organizational Learning*” University of Tennessee, Knoxville, TN, November 7, 2006.
- **Zacharia, Zach G.**, Nancy W. Nix, and Robert F. Lusch “*The Moderating Role of Absorptive Capability and Collaborative Communication in Knowledge Acquisition*” DFWCSMP Roundtable meeting, Dallas, TX, October 12, 2006.
- **Zacharia, Zach G.**, “*Early Supplier Involvement*” National Council for Advanced Manufacturing, Washington, MD, June 7, 2006.
- **Zacharia, Zach G.**, Nancy W. Nix, and Robert F. Lusch “*Keys to Effective Supply Chain Collaboration and Knowledge Acquisition*” National Council for Advanced Manufacturing, Washington, MD, June 7, 2006.
- **Zacharia, Zach G.**, Nancy W. Nix, and Robert F. Lusch “*Keys to Effective Supply Chain Collaboration*” Supplier Network Working Group Meeting, Fort Worth, TX March 16, 2006.
- **Zacharia, Zach G.**, Nancy W. Nix, and Robert F. Lusch “*Keys to Effective Supply Chain Collaboration*” Institute of Supply Management Group Meeting, Fort Worth, Texas, January 3, 2006.

- **Zacharia, Zach G.** “Team Based Learning in MBA and Undergraduate Supply Chain Management Classes” *16th North American Teaching and Research Conference*, Tempe, Arizona, March 17-19. (2005)
- Nix, Nancy W., **Zach G. Zacharia** and Robert F. Lusch “Keys to Effective Supply Chain Collaboration” *16th North American Teaching and Research Conference*, Tempe, Arizona, March 17-19. (2005)
- **Zacharia, Zach G.**, “*Education Strategies*” Council of Logistics Roundtable Leadership Forum, Chicago, Illinois, June 11-12, 2004.
- **Zacharia, Zach G.**, and Nancy W. Nix, “*Supply Chain Collaboration – The role of a 3PL intermediary*” Society of Marketing Advances, New Orleans, Louisiana, November 6 - 8, 2003.
- **Zacharia, Zach G.**, Nancy W. Nix, and Robert F. Lusch “*Collaboration Effectiveness in the Supply Chain: A Knowledge and Capabilities Based Approach*” American Marketing Faculty Consortium, Dallas, Texas, October 30-November 2, 2003.
- **Zacharia, Zach G.**, “*What does it mean to be an education officer in your roundtable?*” Council of Logistics Roundtable Leadership Forum, Chicago, Illinois, June 6-7, 2003.
- Nix, Nancy W. and **Zach G. Zacharia**, Track Chairs “*Going Beyond the Hype: Getting and Measuring the Value from your Supply Chain Initiatives*” Council of Logistics Management Conference, Chicago, Illinois, September 23-27, 2003.
- **Zach G. Zacharia**, *Top 10 Truck Safety Recommendations*, Federal Motor Carrier Safety Administration, Washington, District of Columbia, October 16, 2002.
- **Zach G. Zacharia**, *Logistics Involvement in New Product Development*, University of Arkansas, Fayetteville, Arkansas, September 18, 2002.
- **Zach G. Zacharia**, “Supply and Value Chain Certificate Program” presented at the Supply and Value Chain Conference, Ft. Worth, Texas, February 8, 2002.
- **Zach G. Zacharia**, “*Tennessee Transportation Assistance Program*” presented at the Region 4 LTAP conference, St. Petersburg, Florida, May 16, 2001.
- **Zach G. Zacharia**, “*The Evolution and Growth of Production in the Supply Chain*”, 2000 *Society for Marketing Advances Conference*, Orlando, Florida, November 8. 2000.
- **Zach G. Zacharia**, and Soonhong Min “*The Nature of Interfirm Partnering in Supply Chain Management*” presented at American Marketing Association, Chicago, Illinois, August 5, 2000.
- **Zach G. Zacharia**, “*Searching the Internet and Web Page Design*” presented at University of Tennessee, Knoxville, Tennessee, April 17, 2000.

- **Zach G. Zacharia**, “*An Overview of Truck and Bus Safety: 1999 Knoxville Symposium* presented at the 4th International Fatigue Management Conference, Perth, Australia, March 19 – 22, 2000.
- **Zach G. Zacharia**, “*Traffic Safety and the Internet*” presented at the Governor Highway Safety Conference, Memphis, Tennessee, July 12-14, 1999.
- **Zach G. Zacharia**, “*Tennessee Transportation Assistance Program*” presented at the Asphalt Emulsion Users Conference, Nashville, Tennessee, November 19, 1998.
- **Zach G. Zacharia** and Barton R. Jennings “*The Use of Active Participation and Group Competition to Facilitate Training and Technology Transfer for Adult Learners*” Transportation Research Board Conference, Washington, District of Columbia, January 10-14, 1998.
- **Zach G. Zacharia**, “*Training Requirements for Local Governments*” presented at the National Transportation Training Conference, Reno, Nevada, October 7-9, 1997.
- **Zach G. Zacharia**, “*Logistics Thought: Key Messages and Implications from the Field of Marketing*,” presented at the Council of Logistics Management Doctoral Symposium, Chicago, Illinois, October 3-4, 1997.
- **Zach G. Zacharia**, “*Navigating the Internet*” presented at the Southeast Local Roads Conference, Biloxi, Mississippi, September 24-26, 1997.
- **Zach G. Zacharia**, “*Bridge Paint Expert Systems*,” presented at the Second International Organization for Economic Cooperation and Development (OECD) Conference on Knowledge Based Expert Systems in Transportation, Montreal, Canada, June 14-16, 1992.

G. Teaching and Research Advising

COURSES:

Lehigh University (2008 – Present)

- SCM 186 - Supply Chain Management and Operations (Undergraduate 2008 - present)
- SCM 354 - Logistics and Transportation (Undergraduate 2008-present)
- GBUS 453 – Logistics and Transportation (Graduate 2013 – present)
- GBUS 492- Supply Chain Management Strategy (Graduate 2010- 2015) (Summer Course)
- Advising 14 Supply Chain Management Majors (2021)
- Advising 11 Supply Chain Management Majors (2020)
- Advising 21 Supply Chain Management Majors (2019)
- Advising 5 Supply Chain Management Majors (2018)
- Advising 24 Supply Chain Management Majors (2017)

- Advising 9 Supply Chain Management Majors (2016)
- Advising 27 Supply Chain Management Majors (2015)
- Advising 28 Supply Chain Management Majors (2014)
- Advising 24 Supply Chain Management Majors (2013)
- Advising 9 Supply Chain Management Majors (2012)
- Advising 10 Supply Chain Management Majors (2011)
- Advising 13 Supply Chain Management Majors (2010)
- Advising 6 Supply Chain Management Majors (2009)

Texas Christian University (2001 – 2008)

- Strategic Sourcing and Procurement (Professional MBA) 2007
- Business Simulation (Professional MBA) 2007
- Supply Chain Management Concepts (Full-Time MBA) 2005 – 2008
- Supply Chain Management Concepts (Professional MBA) 2001– 2008
- Logistics and Transportation (Professional MBA) 2001 - 2008
- Supply Chain Tools and Technologies (Professional MBA) 2002
- Logistics and Transportation (Undergraduate) 2001 - 2008
- Supply Chain Management Concepts (Undergraduate) 2003 – 2004
- Supply Chain Tools and Technologies (Undergraduate) 2003
- Procurement and Supply Management (Undergraduate) 2003

University of Tennessee (1996-2001)

- Introduction to Transportation (Undergraduate) Summer 1998
- Introduction to Logistics (Undergraduate) Summer 1999
- Marketing Management (Undergraduate) Spring 2000
- Global Logistics and Transportation (Undergraduate) Summer 2000

H. SERVICE

University

Faculty Compensation Committee (2016 – 2019)

College

Director, Center for Supply Chain Research Lehigh

Promotion and Tenure Committee (2021 – onwards)

Chair, Database and Software Committee (2018 – onwards)

Ph.D. Task Force (2017)

Undergraduate Core Curriculum Committee (2016)

Math Committee to Assess Assessment Results (2010)

Department

BIS Assistant Professor Search Chair – Tenure Track (2021-2021)

SCM Assistant Professor Search Chair – Tenure Track (2020-2020)

DATA Department Chair Search – Tenure Track (2019-2019)

SCM Assistant Professor Search Chair – Tenure Track (2018-2018)

SCM POP Search Chair (2017-2017)
Research Seminar Committee (2010-2011)
SCM Club Faculty Liaison (2009-2019)

Professional (Council of Supply Chain Management Professionals)
Education Committee Member -Lehigh Valley Roundtable (2015-
onwards)
President – Lehigh Valley Roundtable (2012-2015)
Education Conference Chair (2010 – 2011)
Education Strategies Committee Member (2007 – 3-year term)
Case Editor (3-year term)
President – Dallas Roundtable (2007-2008)
Vice President – Dallas Roundtable (2006-2007)
Education chair – Dallas Roundtable (2004-2006)
Member (1999 – onwards)

External Service

Rockefeller Group – Expert Service Consulting (Jan 2020)

Exhibit B: Eligibility Criteria - Advanced Degree - Work Records

Professor: 2075672 – RAFAEL LIMA DESSART

Term: 2nd Semester of 2013

Program: CSGEL – GEOLOGY

Course: GEMF04 – GEOMORPHOLOGY | Class: M1 | Workload: 60 hours

Weekday Thursday	Start Time 8:25 AM	End Time 10:25 AM	Start Date 11/04/2013	End Date 04/03/2014	Class Type Theoretical
Weekday Friday	Start Time 8:25 AM	End Time 9:20 AM	Start Date 11/04/2013	End Date 04/03/2014	Class Type Theoretical
Weekday Friday	Start Time 9:30 AM	End Time 10:25 AM	Start Date 11/04/2013	End Date 04/03/2014	Class Type Practical

Course: GESP06 – GEOGRAPHIC INFORMATION SYSTEMS (GIS) AND DIGITAL IMAGE PROCESSING (DIP) Class: M1
Workload: 60 hours

Weekday Thursday	Start Time 2:00 PM	End Time 3:50 PM	Start Date 11/04/2013	End Date 04/03/2014	Class Type Theoretical
Weekday Friday	Start Time 2:00 PM	End Time 3:50 PM	Start Date 11/04/2013	End Date 04/03/2014	Class Type Practical

Program: CSGEO – GEOPHYSICS

Course: 9SER000 – REMOTE SENSING | Class: M1 | Workload: 60 hours

Weekday Monday	Start Time 2:00 PM	End Time 3:50 PM	Start Date 11/04/2013	End Date 04/03/2014	Class Type Theoretical
Weekday Friday	Start Time 4:00 PM	End Time 4:55 PM	Start Date 11/04/2013	End Date 04/03/2014	Class Type Theoretical
Weekday Friday	Start Time 4:55 PM	End Time 5:50 PM	Start Date 11/04/2013	End Date 04/03/2014	Class Type Practical

Program: CSTM – MINING

Course: 12TM802 – BASIC INFORMATICS | Class: T1 | Workload: 30 hours

Weekday Friday	Start Time 8:50 PM	End Time 10:40 PM	Start Date 11/04/2013	End Date 04/03/2014	Class Type Theoretical
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Professor's Total Teaching Hours: 210 hours

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Aline Lopes Balladares
Academic Coordinator
UNIPAMPA
Caçapava do Sul Campus

Professor: 2075672 – RAFAEL LIMA DESSART
Term: 1st Semester of 2014

Program: CSESA – SANITARY AND ENVIRONMENTAL ENGINEERING

Course: EACH03 – CLIMATOLOGY AND HYDROLOGY | Class: M1 | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Wednesday	8:25 AM	10:25 AM	05/05/2014	09/06/2014	Theoretical
Thursday	8:25 AM	9:20 AM	05/05/2014	09/06/2014	Theoretical
Thursday	9:30 AM	10:25 AM	05/05/2014	09/06/2014	Practical

Course: FASI05 – GEOGRAPHIC INFORMATION SYSTEM (GIS) AND DIGITAL IMAGE PROCESSING (DIP) Class: M1
Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Monday	4:00 PM	5:50 PM	05/05/2014	09/06/2014	Theoretical
Friday	4:00 PM	5:50 PM	05/05/2014	09/06/2014	Practical

Program: CSGEL – GEOLOGY

Course: GECH03 – CLIMATOLOGY AND HYDROLOGY | Class: M1 | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Wednesday	8:25 AM	10:25 AM	05/05/2014	09/06/2014	Theoretical
Thursday	8:25 AM	9:20 AM	05/05/2014	09/06/2014	Theoretical
Thursday	9:30 AM	10:25 AM	05/05/2014	09/06/2014	Practical

Course: GESR05 – REMOTE SENSING | Class: M1 | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Tuesday	2:00 PM	4:55 PM	05/05/2014	09/06/2014	Theoretical
Tuesday	4:55 PM	5:50 PM	05/05/2014	09/06/2014	Practical

Course: GEST01 – EARTH SYSTEM | CLASS: M1 | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Monday	2:00 PM	3:50 PM	05/05/2014	09/06/2014	Theoretical
Thursday	2:00 PM	2:55 PM	05/05/2014	09/06/2014	Theoretical
Thursday	2:55 PM	3:50 PM	05/05/2014	09/06/2014	Practical

Program: CSGEO – GEOPHYSICS

Course: 9SIG005 – GEOGRAPHIC INFORMATION SYSTEMS | Class: M1 | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Tuesday	7:30 AM	9:20 PM	05/05/2014	09/06/2014	Theoretical
Thursday	10:25 AM	12:15 PM	05/05/2014	09/06/2014	Practical

Program: CSIM – MINING

Course: 12TMSR07 – REMOTE SENSING | Class: M1 | Workload: 60 hours

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Aline Lopes Balladares
Academic Coordinator

Professor: 2075672 – RAFAEL LIMA DESSART
Term: 1st Semester of 2014

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Friday	6:50 PM	8:40 PM	05/05/2014	09/06/2014	Theoretical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Friday	8:50 AM	10:40 PM	05/05/2014	09/06/2014	Practical

Professor's Total Teaching Hours: 330 hours

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Aline Lopes Balladares
Academic Coordinator
UNIPAMPA
Caçapava do Sul Campus

Professor: 2075672 – RAFAEL LIMA DESSART
Term: 2nd Semester of 2014

Program: CSESA – SANITARY AND ENVIRONMENTAL ENGINEERING

Course: EAEN06 – ALTERNATIVE ENERGIES | Class: M1 | Workload: 60 hours

Weekday Thursday	Start Time 2:00 PM	End Time 3:50 PM	Start Date 09/22/2014	End Date 02/09/2015	Class Type Theoretical
Weekday Friday	Start Time 8:25 AM	End Time 9:20 AM	Start Date 09/22/2014	End Date 02/09/2015	Class Type Theoretical
Weekday Friday	Start Time 9:30 AM	End Time 10:25 AM	Start Date 09/22/2014	End Date 02/09/2015	Class Type Practical

Program: CSGEL – GEOLOGY

Course: 14GEMF04 – GEOMORPHOLOGY | Class: M1 | Workload: 45 hours

Weekday Friday	Start Time 7:30 AM	End Time 9:20 AM	Start Date 09/22/2014	End Date 02/09/2015	Class Type Theoretical
Weekday Friday	Start Time 9:30 AM	End Time 10:25 AM	Start Date 09/22/2014	End Date 02/09/2015	Class Type Practical

Course: 14GESPO6 – GEOGRAPHIC INFORMATION SYSTEMS (GIS) AND DIGITAL IMAGE PROCESSING (DIP) | Class: M1 | Workload: 60 hours

Weekday Monday	Start Time 2:00 PM	End Time 3:50 PM	Start Date 09/22/2014	End Date 02/09/2015	Class Type Theoretical
Weekday Friday	Start Time 2:00 PM	End Time 3:50 PM	Start Date 09/22/2014	End Date 02/09/2015	Class Type Practical

Program: CSTM – MINING

Course: 12TMB02 – BASIC INFORMATICS | Class: T1 | Workload: 30 hours

Weekday Monday	Start Time 6:50 PM	End Time 8:40 PM	Start Date 09/22/2014	End Date 02/09/2015	Class Type Theoretical
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Professor's Total Teaching Hours: 165 hours

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Aline Lopes Balladares
Academic Coordinator
UNIPAMPA
Caçapava do Sul Campus

Professor: 2075672 – RAFAEL LIMA DESSART

Term: 1st Semester of 2015

Program: CSESA – SANITARY AND ENVIRONMENTAL ENGINEERING

Course: EASI05 – GEOGRAPHIC INFORMATION SYSTEM (GIS) AND DIGITAL IMAGE PROCESSING (DIP) | Class: T5 | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Monday	9:30 AM	11:20 AM	03/12/2015	07/22/2015	Theoretical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Wednesday	9:30 AM	11:20 AM	03/12/2015	07/22/2015	Practical

Program: CSGEL – GEOLOGY

Course: 140EHG07 – HYDROGEOLOGY | Class: T4 | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Tuesday	10:25 AM	12:15 PM	03/12/2015	07/22/2015	Theoretical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Friday	9:30 AM	10:25 AM	03/12/2015	07/22/2015	Theoretical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Friday	10:25 AM	11:20 AM	03/12/2015	07/22/2015	Practical

Course: CSSR10 – REMOTE SENSING | Class: T4 | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Tuesday	8:25 AM	10:25 AM	03/12/2015	07/22/2015	Theoretical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Thursday	9:30 AM	10:25 AM	03/12/2015	07/22/2015	Theoretical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Thursday	10:25 AM	11:20 AM	03/12/2015	07/22/2015	Practical

Program: CSTM – MINING

Course: 12TMSR07 – REMOTE SENSING | Class: T3 | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Monday	6:50 PM	8:40 PM	03/12/2015	07/22/2015	Theoretical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Friday	6:50 PM	8:40 PM	03/12/2015	07/22/2015	Practical

Professor's Total Teaching Hours: 210 hours

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Aline Lopes Balladares
Academic Coordinator
UNIPAMPA
Caçapava do Sul Campus

Professor: 2075672 – RAFAEL LIMA DESSART

Term: 2nd Semester of 2015

Program: CSGEL – GEOLOGY

Course: 14GEMF04 – GEOMORPHOLOGY | Class: T4 | Workload: 45 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Friday	7:30 AM	9:20 AM	08/12/2015	12/19/2015	Theoretical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Friday	9:30 AM	10:25 AM	08/12/2015	12/19/2015	Practical

Course: 14GEMP08 – GEOLOGICAL MAPPING IV | Class: T4A | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Tuesday	4:00 PM	5:50 PM	08/12/2015	12/19/2015	Practical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Saturday	2:00 PM	3:50 PM	08/12/2015	12/19/2015	Practical

Course: 14GEMP08 – GEOLOGICAL MAPPING IV | Class: T4B | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Tuesday	4:00 PM	5:50 PM	08/12/2015	12/19/2015	Practical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Saturday	4:00 PM	5:50 PM	08/12/2015	12/19/2015	Practical

Course: CSTP10 – TOPOGRAPHY | Class: T4 | Workload: 60 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Tuesday	2:00 PM	3:50 PM	08/12/2015	12/19/2015	Theoretical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Thursday	4:00 PM	5:50 PM	08/12/2015	12/19/2015	Practical

Program: CSGEO – GEOPHYSICS

Course: CSCT10 – CARTOGRAPHY | Class: T1 | Workload: 45 hours

Weekday	Start Time	End Time	Start Date	End Date	Class Type
Wednesday	9:30 AM	11:20 AM	08/12/2015	12/19/2015	Theoretical
Weekday	Start Time	End Time	Start Date	End Date	Class Type
Wednesday	11:20 AM	12:15 PM	08/12/2015	12/19/2015	Practical

Professor's Total Teaching Hours: 180 hours

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Prof. Dr. Ricardo Machado Ellensohn
ACADEMIC COORDINATOR
SIAPE 1829866
UNIPAMPA – Caçapava do Sul Campus

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: July 3, 2025.

1.1.2.20.11 Oferta de disciplina por docente

Docente: 2075672 - RAFAEL LIMA DESSART

Período: 2. Semestre de 2013

Curso: CSGEL - GEOLOGIA

Disciplina: GEMF04 - GEOMORFOLOGIA Turma: M1 Carga Horária: 60 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quinta-feira	08:25:00	10:25:00	04/11/2013	03/04/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	08:25:00	09:20:00	04/11/2013	03/04/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	09:30:00	10:25:00	04/11/2013	03/04/2014	Prática

Disciplina: GESPO6 - SISTEMA DE INFORMACOES GEOGRAFICAS (SIG) E PROCESSAMENTO DIGITAL DE IMAGENS (PD) Turma: M1 Carga Horária: 60 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quinta-feira	14:00:00	15:50:00	04/11/2013	03/04/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	14:00:00	15:50:00	04/11/2013	03/04/2014	Prática

Curso: CSGEO - GEOFISICA

Disciplina: 9SER000 - SENSORIAMENTO REMOTO Turma: M1 Carga Horária: 60 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Segunda-feira	14:00:00	15:50:00	04/11/2013	03/04/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	16:00:00	16:55:00	04/11/2013	03/04/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	16:55:00	17:50:00	04/11/2013	03/04/2014	Prática

Curso: CSTM - MINERACAO

Disciplina: 12TMB02 - INFORMATICA BASICA Turma: T1 Carga Horária: 30 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	20:50:00	22:40:00	04/11/2013	03/04/2014	Teórica

Total de Carga Horária do Docente: 210h


Aline Lopes Balladares
Coordenadora Acadêmica
UNIPAMPA
Campus Caçapava do Sul

1.1.2.20.11 Oferta de disciplina por docente
Docente: 2075672 - RAFAEL LIMA DESSART

Período: 1. Semestre de 2014

Curso: CSEA - ENGENHARIA SANITÁRIA E AMBIENTAL

Disciplina: EACH03 - CLIMATOLOGIA E HIDROLOGIA Turma :M1 Carga Horária: 60 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quarta-feira	08:25:00	10:25:00	05/05/2014	06/09/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quinta-feira	08:25:00	09:20:00	05/05/2014	06/09/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quinta-feira	09:30:00	10:25:00	05/05/2014	06/09/2014	Prática

Disciplina: EAS05 - SISTEMA DE INFORMACAO GEOGRAFICA - SIG E PROCESSAMENTO DIGITAL DE IMAGENS (PD) Turma :M1 Carga Horária: 60 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Segunda-feira	16:00:00	17:50:00	05/05/2014	06/09/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	16:00:00	17:50:00	05/05/2014	06/09/2014	Prática

Curso: CSGEL - GEOLOGIA

Disciplina: GECH03 - CLIMATOLOGIA E HIDROLOGIA Turma :M1 Carga Horária: 60 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quarta-feira	08:25:00	10:25:00	05/05/2014	06/09/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quinta-feira	08:25:00	09:20:00	05/05/2014	06/09/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quinta-feira	09:30:00	10:25:00	05/05/2014	06/09/2014	Prática

Disciplina: GESR05 - SENSORIAMENTO REMOTO Turma :M1 Carga Horária: 60 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Terça-feira	14:00:00	16:55:00	05/05/2014	06/09/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Terça-feira	16:55:00	17:50:00	05/05/2014	06/09/2014	Prática

Disciplina: GEST01 - SISTEMA TERRA Turma :M1 Carga Horária: 60 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Segunda-feira	14:00:00	15:50:00	05/05/2014	06/09/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quinta-feira	14:00:00	14:55:00	05/05/2014	06/09/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quinta-feira	14:55:00	15:50:00	05/05/2014	06/09/2014	Prática

Curso: CSGEO - GEOFISICA

Disciplina: 9SG005 - SISTEMA DE INFORMACOES GEOGRAFICAS Turma :M1 Carga Horária: 60 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Terça-feira	07:30:00	09:20:00	05/05/2014	06/09/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quinta-feira	10:25:00	12:15:00	05/05/2014	06/09/2014	Prática

Curso: CSTM - MINERACAO

Disciplina: 12TMSR07 - SENSORIAMENTO REMOTO Turma :M1 Carga Horária: 60 h

Aline Lopes Balladares

Coordenadora Acadêmica

UNIPAMPA

Página: 1

1.1.2.20.11 Oferta de disciplina por docente

Docente: 2075672 - RAFAEL LIMA DESSART

Período: 1. Semestre de 2014

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	18:50:00	20:40:00	05/05/2014	06/09/2014	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	20:50:00	22:40:00	05/05/2014	06/09/2014	Prática

Total de Carga Horária do Docente: 330h



Aline Lopes Balladares
Coordenadora Acadêmica
UNIPAMPA
Campus Caçapava do Sul

1.1.2.20.11 Oferta de disciplina por docente
Docente: 2075672 - RAFAEL LIMA DESSART

Período: 2. Semestre de 2014

Curso: C.SESA - ENGENHARIA SANITÁRIA E AMBIENTAL

Disciplina: EAPN06 - ENERGIAS ALTERNATIVAS Turma: M1 Carga Horária: 60 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Quinta-feira	14:00:00	15:50:00	22/09/2014	09/02/2015	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	08:25:00	09:20:00	22/09/2014	09/02/2015	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	09:30:00	10:25:00	22/09/2014	09/02/2015	Prática

Curso: CSGEL - GEOLOGIA

Disciplina: 14GEMF04 - GEOMORFOLOGIA Turma: T1 Carga Horária: 45 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	07:30:00	09:20:00	22/09/2014	09/02/2015	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	09:30:00	10:25:00	22/09/2014	09/02/2015	Prática

Disciplina: 14GESPO5 - SISTEMAS DE INFORMAÇÕES GEOGRÁFICAS (SIG) E PROCESSAMENTO DIGITAL DE IMAGENS (PD) Turma: T1
 Carga Horária: 60 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Segunda-feira	14:00:00	15:50:00	22/09/2014	09/02/2015	Teórica
Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Sexta-feira	14:00:00	15:50:00	22/09/2014	09/02/2015	Prática

Curso: CSTM - MINERAÇÃO

Disciplina: 12TMB02 - INFORMÁTICA BÁSICA Turma: T1 Carga Horária: 30 h

Dia Semana	Hora Inicio	Hora Fim	Data Inicio	Data Fim	Tipo Aula
Segunda-feira	18:50:00	20:40:00	22/09/2014	09/02/2015	Teórica

Total de Carga Horária do Docente: 165h

 Aline Lopes Balladares
 Coordenadora Acadêmica
 UNIPAMPA
 Campus Caçapava do Sul

1.1.2.20.11 Oferta de disciplina por docente
Docente: 2075672 - RAFAEL LIMA DESSART

Período: 1. Semestre de 2015

Curso: CSEA - ENGENHARIA SANITÁRIA E AMBIENTAL

Disciplina: EAS05 - SISTEMA DE INFORMAÇÃO GEOGRÁFICA - SIG E PROCESSAMENTO DIGITAL DE IMAGENS (PD) Turma: T5 Carga Horária: 60 h

Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula
Segunda-feira	09:30:00	11:20:00	12/03/2015	22/07/2015	Teórica
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula
Quarta-feira	09:30:00	11:20:00	12/03/2015	22/07/2015	Prática

Curso: CSGEL - GEOLOGIA

Disciplina: 140EH07 - HIDROGEOLOGIA Turma: T4 Carga Horária: 60 h

Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula
Terça-feira	10:25:00	12:15:00	12/03/2015	22/07/2015	Teórica
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula
Sexta-feira	09:30:00	10:25:00	12/03/2015	22/07/2015	Teórica
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula
Sexta-feira	10:25:00	11:20:00	12/03/2015	22/07/2015	Prática

Disciplina: CSSR10 - SENSORIAMENTO REMOTO Turma: T4 Carga Horária: 60 h

Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula
Terça-feira	08:25:00	10:25:00	12/03/2015	22/07/2015	Teórica
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula
Quinta-feira	09:30:00	10:25:00	12/03/2015	22/07/2015	Teórica
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula
Quinta-feira	10:25:00	11:20:00	12/03/2015	22/07/2015	Prática

Curso: CSTM - MINERAÇÃO

Disciplina: 12TMSR07 - SENSORIAMENTO REMOTO Turma: T3 Carga Horária: 60 h

Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula
Segunda-feira	18:50:00	20:40:00	12/03/2015	22/07/2015	Teórica
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula
Sexta-feira	18:50:00	20:40:00	12/03/2015	22/07/2015	Prática

Total de Carga Horária do Docente: 210h

 Aline Lopes Balladares
 Coordenadora Acadêmica
 UNIPAMPA
 Campus Caçapava do Sul

1.1.2.20.11 Oferta de disciplina por docente
Docente: 2075672 - RAFAEL LIMA DESSART

Período: 2 Semestre de 2015

Curso: CSGEL - GEOLOGIA

Disciplina: 14GEMP04 - GEOMORFOLOGIA Turma: T4 Carga Horária: 45 h						
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula	
Sexta-feira	07:30:00	09:20:00	12/08/2015	19/12/2015	Teórica	
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula	
Sexta-feira	09:30:00	10:25:00	12/08/2015	19/12/2015	Prática	

Disciplina: 14GEMP08 - MAPEAMENTO GEOLOGICO IV Turma: T4A Carga Horária: 60 h						
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula	
Terça-feira	16:00:00	17:50:00	12/08/2015	19/12/2015	Prática	
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula	
Sábado	14:00:00	15:50:00	12/08/2015	19/12/2015	Prática	

Disciplina: 14GEMP08 - MAPEAMENTO GEOLOGICO IV Turma: T4B Carga Horária: 60 h						
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula	
Terça-feira	16:00:00	17:50:00	12/08/2015	19/12/2015	Prática	
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula	
Sábado	16:00:00	17:50:00	12/08/2015	19/12/2015	Prática	

Disciplina: CSTP10 - TOPOGRAFIA Turma: T4 Carga Horária: 60 h						
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula	
Terça-feira	14:00:00	15:50:00	12/08/2015	19/12/2015	Teórica	
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula	
Quinta-feira	16:00:00	17:50:00	12/08/2015	19/12/2015	Prática	

Curso: CSGEO - GEOFISICA

Disciplina: CSCT10 - CARTOGRAFIA Turma: T1 Carga Horária: 45 h						
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula	
Quarta-feira	09:30:00	11:20:00	12/08/2015	19/12/2015	Teórica	
Dia Semana	Hora Início	Hora Fim	Data Início	Data Fim	Tipo Aula	
Quarta-feira	11:20:00	12:15:00	12/08/2015	19/12/2015	Prática	

Total de Carga Horária do Docente: 180h


Prof. Dr. Ricardo M. Ellensohn
 COORDENADOR ACADÊMICO
 SIAPE 1629866
 UNIPAMPA Cachoeira do Sul



FEDERAL PUBLIC SERVICE
MINISTRY OF EDUCATION



CERTIFICATE

I hereby certify, for all due purposes, that Prof. Dr. Rafael Lima Dessart (Siape: 2075672) was the advisor of the volunteer monitor Bruno Nunes Machado, in the course Earth System, during the period from 06/2014 to 09/2014.

**SIAPÉ: Integrated Human Resources Management System*

Caçapava do Sul, April 13, 2015.

----//signature//----

Prof. Dr. Aline Lopes Balladares
Academic Coordinator
UNIPAMPA – Caçapava do Sul Campus



FEDERAL PUBLIC SERVICE
MINISTRY OF EDUCATION



CERTIFICATE

I hereby certify, for all due purposes, that Prof. Dr. Rafael Lima Dessart (Siape: 2075672) was the advisor of the volunteer monitor Tatiana Morais Alves, in the course Earth System, during the period from 06/2014 to 09/2014.

Caçapava do Sul, April 13, 2015.

----//signature//----

Prof. Dr. Aline Lopes Balladares
Academic Coordinator
UNIPAMPA – Caçapava do Sul Campus



FEDERAL PUBLIC SERVICE
MINISTRY OF EDUCATION



CERTIFICATE

I hereby certify, for all due purposes, that Prof. Dr. Rafael Lima Dessart (Siape: 2075672) was the advisor of the volunteer monitor Magson Aguires Lorenzi, in the course Remote Sensing, during the period from 06/2014 to 09/2014.

Caçapava do Sul, April 13, 2015.

----//signature//----

Prof. Dr. Aline Lopes Balladares
Academic Coordinator
UNIPAMPA – Caçapava do Sul Campus



FEDERAL PUBLIC SERVICE
MINISTRY OF EDUCATION



CERTIFICATE

I hereby certify, for all due purposes, that Prof. Dr. Rafael Lima Dessart (Siape: 2075672) was the advisor of the volunteer monitor Bruna Antunes de Oliveira (Registration: 121152399), in the course of Topography for the teaching project entitled "**Voluntary Topography Monitoring for the Geology Course**", during the period from 09/2015 to 12/2015.

Caçapava do Sul, January 8, 2016.

Carolina Sampaio Marques
Administrative Coordinator
SIAPE – 1758011
UNIPAMPA – Caçapava do Sul Campus

----//signature//----
Prof. Dr. Ricardo Machado Ellensohn
Academic Coordinator
UNIPAMPA – Caçapava do Sul Campus



FEDERAL PUBLIC SERVICE
MINISTRY OF EDUCATION



CERTIFICATE

I hereby certify, for all due purposes, that Prof. Dr. Rafael Lima Dessart (Siape: 2075672) was the advisor of the volunteer monitor Neymer Wesclay Oliveira Guimarães (Registration: 111151561), in the teaching project entitled "**Geological Mapping Monitoring IV**," during the period from 09/2015 to 12/2015.

Caçapava do Sul, January 8, 2016.

Carolina Sampaio Marques
Administrative Coordinator
SIAPE – 1758011
UNIPAMPA – Caçapava do Sul Campus

----//signature//----

Prof. Dr. Ricardo Machado Ellensohn
Academic Coordinator
UNIPAMPA – Caçapava do Sul Campus



FEDERAL PUBLIC SERVICE
MINISTRY OF EDUCATION



CERTIFICATE

I hereby certify, for all due purposes, that Prof. Dr. Rafael Lima Dessart (Siape: 2075672) was the advisor of the volunteer monitor Caleb de Souza Ribeiro (Registration: 111150926), in the teaching project entitled "**Voluntary Monitoring of Geomorphology for Geology**", during the period from 09/2015 to 12/2015.

Caçapava do Sul, January 8, 2016.

Carolina Sampaio Marques
Administrative Coordinator
SIAPE – 1758011
UNIPAMPA – Caçapava do Sul Campus

----//signature//----

Prof. Dr. Ricardo Machado Ellensohn
Academic Coordinator
UNIPAMPA – Caçapava do Sul Campus



FEDERAL PUBLIC SERVICE
MINISTRY OF EDUCATION



CERTIFICATE

I hereby certify, for all due purposes, that Prof. Dr. Rafael Lima Dessart (Siape: 2075672) was the advisor of the volunteer monitor Victor Hugo Braga (Registration: 141151569), in the course of Topography for the project entitled "**Voluntary Topography Monitoring for the Geology Course**", during the period from 09/2015 to 12/2015.

Caçapava do Sul, January 8, 2016.

Carolina Sampaio Marques
Administrative Coordinator
SIAPE – 1758011
UNIPAMPA – Caçapava do Sul Campus

----//signature//----
Prof. Dr. Ricardo Machado Ellensohn
Academic Coordinator
UNIPAMPA – Caçapava do Sul Campus

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: July 3, 2025.



SERVIÇO PÚBLICO FEDERAL
MINISTÉRIO DA EDUCAÇÃO



ATESTADO

Atesto, para os devidos fins, que o Prof. Dr. Rafael Lima Dessart (Siape: 2075672) foi orientador do monitor voluntário Bruno Nunes Machado, na disciplina de Sistema Terra, no período 06/2014 a 09/2014.

Caçapava do Sul, 13 de Abril de 2015.


Prof.^a Dr.^a Aline Lopes Balladares
Coordenadora Acadêmica
UNIPAMPA - Campus Caçapava do Sul



SERVIÇO PÚBLICO FEDERAL
MINISTÉRIO DA EDUCAÇÃO



ATESTADO

Atesto, para os devidos fins, que o Prof. Dr. Rafael Lima Dessart (Siape: 2075672) foi orientador da monitora voluntária Tatiana Moraes Alves, na disciplina de Sistema Terra, no período 06/2014 a 09/2014.

Caçapava do Sul, 13 de Abril de 2015.


Profª. Drª. Aline Lopes Balladares
Coordenadora Acadêmica
UNIPAMPA - Campus Caçapava do Sul



ATESTADO

Atesto, para os devidos fins, que o Prof. Dr. Rafael Lima Dessart (Siape: 2075672) foi orientador do monitor voluntário Magson Aguires Lorenzi, na disciplina de Sensoriamento Remoto, no período 06/2014 a 09/2014.

Caçapava do Sul, 13 de Abril de 2015.

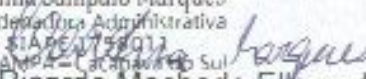
Prof^a. Dr^a. Aline Lopes Balladares
Coordenadora Acadêmica
UNIPAMPA - Campus Caçapava do Sul



ATESTADO

Atesto, para os devidos fins, que o Prof. Dr. Rafael Lima Dessart (Siape: 2075672), foi orientador da monitória voluntária Bruna Antunes de Oliveira (Matrícula: 121152399), na disciplina de topografia no projeto de ensino intitulado "**Monitoria Voluntária de Topografia para o Curso de Geologia**", no período de 09/2015 a 12/2015.

Caçapava do Sul, 08 de Janeiro de 2016.

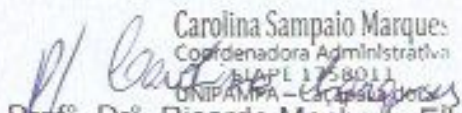

Carolina Sampaio Marques
Coordenadora Administrativa
SIAP 2075672
UNIPAMPA - Caçapava do Sul

Prof. Dr. Ricardo Machado Ellensohn
Coordenador Acadêmico
UNIPAMPA - Campus Caçapava do Sul



ATESTADO

Atesto, para os devidos fins, que o Prof. Dr. Rafael Lima Dessart (Siape: 2075672), foi orientador do monitor voluntário Neymer Wesclay Oliveira Guimarães (Matrícula: 111151561), no projeto de ensino intitulado "**Monitoria de Mapeamento Geológico IV**", no período de 09/2015 a 12/2015.

Caçapava do Sul, 08 de Janeiro de 2016.


Carolina Sampaio Marques
Coordenadora Administrativa
UNIPAMPA - Caçapava do Sul
Prof. Dr. Ricardo Machado Ellensohn
Coordenador Acadêmico
UNIPAMPA - Campus Caçapava do Sul



ATESTADO

Atesto, para os devidos fins, que o Prof. Dr. Rafael Lima Dessart (Siape: 2075672), foi orientador do monitor voluntário Caleb de Souza Ribeiro (Matrícula: 111150926), no projeto de ensino intitulado **"Monitoria Voluntária de Geomorfologia para a Geologia"**, no período de 09/2015 a 12/2015.

Caçapava do Sul, 08 de Janeiro de 2016.


Carolina Sampaio Marques
Coordenadora de Monitoria
SIAPE 1758011
UNIPAMPA
Prof. Dr. Ricardo Machado Ellensohn
Coordenador Acadêmico
UNIPAMPA - Campus Caçapava do Sul



ATESTADO

Atesto, para os devidos fins, que o Prof. Dr. Rafael Lima Dessart (Siape: 2075672), foi orientador do monitor voluntário Victor Hugo Braga (Matrícula: 141151569), na disciplina de Topografia no projeto intitulado "**Monitoria Voluntária de Topografia para o Curso de Geologia**", no período de 09/2015 a 12/2015.

Caçapava do Sul, 08 de Janeiro de 2016.

Carolina Sampalo Marques
Coordenadora Administrativa
SIAPES 0758027
UNIPAMPA - Caçapava do Sul

Prof. Dr. Ricardo Machado Ellensohn
Coordenador Acadêmico
UNIPAMPA - Campus Caçapava do Sul

April 3, 2025

To whom it may concern,

The purpose of this letter is to certify that Mr. [Rafael Lima Dessart](#) worked as a full-time [Geology Consultant](#) at [FTGeo Consultoria Ltda.](#), from [February 1, 2013](#), to [August 1, 2013](#).

In this role, [he](#) demonstrated consistent career progression, taking on increasing levels of responsibility and showcasing expertise in his field of work. His duties as a [Geology Consultant](#) included:

- Coordinate the organization's activities;
- Identify opportunities to improve policies or business objectives;
- Ensure the company operates safely and efficiently;
- Prepare and review operational reports;
- Lead and/or participate in meetings.

Please do not hesitate to contact me via email (ftgeologia@gmail.com) or by phone at +55 51 98186-5730 should you have any further questions regarding [Mr. Rafael Lima Dessart](#)'s professional experience or qualifications.

Sincerely,



Digitally signed document

TIAGO DE ALMEIDA
Date: 05/19/2025 10:39:33-0300
Verify at <https://validar.iti.gov.br>

NAME: TIAGO DE ALMEIDA

POSITION: Director

Rua 13 de Maio, 230 Apartment 701 – Centro – Estrela, Rio Grande do Sul – 95880-000

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: July 29, 2025.

03 de abril de 2025

A quem possa interessar,

A presente carta tem por finalidade certificar que o Sr. [Rafael Lima Dessart](#) trabalhou como [Consultor em Geologia](#) em tempo integral na empresa [FTGeo Consultoria Ltda.](#), desde [01 de fevereiro de 2013](#) até a [01 de agosto de 2013](#).

Nesse cargo, [ele](#) demonstrou progressão constante na carreira, assumindo níveis crescentes de responsabilidade e demonstrando expertise em sua área de atuação. Suas atribuições como [Consultor de geologia](#):

- Coordenar as atividades da organização;
- Identificar oportunidades para aprimorar políticas ou objetivos empresariais;
- Garantir que a empresa opere de forma segura e eficaz;
- Elaborar e revisar relatórios operacionais;
- Liderar e/ou participar de reuniões.

Por favor, não hesite em entrar em contato comigo através do e-mail (ftgeologia@gmail.com) ou pelo telefone +5551981865730, caso haja dúvidas adicionais quanto à experiência profissional ou qualificações do [Sr. Rafael Lima Dessart](#)

Atenciosamente, 

Documento assinado digitalmente
TIAGO DE ALMEIDA
Data: 19/05/2025 10:39:33-0300
Verifique em <https://validar.iti.gov.br>

NOME: TIAGO DE ALMEIDA

CARGO: Diretor

Rua 13 de Maio, 230 ap 701 - Centr0 - Estrela- RS - 95880-000

SERVICE AGREEMENT AND OTHER COVENANTS

CONTRACTING PARTY: GEOPROSPEC GEOLOGIA E PROJETOS AMBIENTAIS LTDA., headquartered at Av. Farrapos, 146 – Suite 62, Porto Alegre/RS, registered under CNPJ No. 89.145.973/0001-22, herein represented, in accordance with its Articles of Incorporation duly filed with the State Board of Trade under No. 43200656550, by its Technical and Legal Representatives, Mr. **Eduardo Centeno Broll Carvalho**, Brazilian, of legal age, Geologist, holder of identity card No. 1080531278 and CPF No. 969684430-15, residing in the city of Porto Alegre, and Mr. **Ivanor Antonio Sinigaglia**, Brazilian, of legal age, married, Agronomist Engineer, holder of identity card No. 1050204211 and CPF No. 615990930-49, residing in São Leopoldo, who, at the end of this contract, shall sign on behalf of the **CONTRACTING PARTY**.

CONTRACTED PARTY: RAFAEL LIMA DESSART, Brazilian, of legal age, Geologist, holder of identity card No. 2017712453 and CPF No. 692.225.760-04, registered with CREA/RS under No. 12.6851-D, residing at Av. Independência, No. 687 / Apt. 401, Bairro Independência – ZIP Code 90035-076, Porto Alegre/RS.

The parties identified above, in full legal capacity, have mutually agreed to execute this Service Agreement and Other Covenants, governed by the clauses set forth below and by the terms of price, form, and conditions of payment as described herein.

CLAUSE I – PURPOSE

The **CONTRACTED PARTY** shall perform the professional and technical services described below, related to the Physical Environment Survey of an extraction area located in Capão Bonito do Sul, for the company ICCILA.

PARAGRAPH ONE: The object of this agreement includes the following services, to be carried out in accordance with the Terms of Reference for Environmental Licensing – Preliminary License, as per the FEPAM TR, September 2012 version, covering the following items:

- ✓ Identification of nearby water sources (size and flow rate) and the respective basin, aimed at evaluating the qualitative and quantitative conditions of these resources (map and diagram as defined in items 7.1 and 7.4, respectively);
- ✓ Description of the soils, erosion susceptibility, geology, and local geomorphology;
- ✓ Preparation of the Final Technical Report for the services rendered in the area;
- ✓ Issuance of the Technical Responsibility Annotation with CREA for the services rendered.

CLAUSE II – PRICE AND PAYMENT TERMS

The services rendered under this agreement shall be compensated in the amount of R\$ 1,600.00 (one thousand six hundred Reais), referring to the services effectively performed, and shall be paid in cash, by check, or via another method mutually agreed upon by the parties, as follows:

- a) R\$ 800.00 (eight hundred Reais), corresponding to the first installment, to be paid within five (5) business days after the review and approval of the final technical report by the project manager, Rita Guasina;
- b) R\$ 800.00 (eight hundred Reais), corresponding to the second installment, to be paid within twenty (20) days after the first payment.

Failure to make the payment shall result in legal interest charges (1% per month) applied to the overdue amount, as well as monetary correction based on the IGPM/FGV index, with the **CONTRACTING PARTY** being required to pay the agreed-upon amount in arrears, without such delay having resulted from non-receipt by the

-----// signature //-----

SERVICE AGREEMENT

Parties:

A) **GEOMAP GEOLOGIA LTDA**, a private legal entity, headquartered at Rua Coronel Flores, 285, Centro Neighborhood, in the municipality of Estrela, RS, registered under CNPJ No. 05.201.724/0001-17, exempt from State Registration, Municipal Registration 11555.0, herein represented by Managing Partner Luiz Paulo Plentz, Brazilian, married, residing at Rua Edvino Kilpp, No. 100, Oriental Neighborhood, municipality of Estrela, RS, CPF 437.540.070-68, RG 7030641621, issued on 10/06/1982 by SSP/RS, hereinafter referred to as the CONTRACTING PARTY;

B) **RAFAEL LIMA DESSART**, an individual, Brazilian, married, geologist, CREA-RS registration No. RS126851D, residing at Av. Independência, 687, apt. 401, Independência Neighborhood, municipality of Porto Alegre/RS, CPF 692.225.760-04, RG 2017712452 issued by SJS/RS, hereinafter referred to as the CONTRACTED PARTY.

CLAUSE ONE: The purpose of this agreement is the provision of services by the CONTRACTED PARTY to the CONTRACTING PARTY, assuming the role of Technical Responsible for the company in technical consulting in geology and technical geological reports.

CLAUSE TWO: This agreement is valid for an indefinite period from the date of signature. Either party may terminate the contract by giving written notice at least 30 (thirty) days in advance.

CLAUSE THREE: The cancellation of technical responsibility must be reported to CREA by the initiating party immediately after the occurrence, pursuant to legislation: CONFEA Resolution 336, Art. 17 – The technical responsibility of any professional for a legal entity is terminated, and the registration must be updated, as of the moment when:

I – it is requested in writing to the Regional Council by the professional or the legal entity, for cancellation of such role;

II – the professional is suspended from practicing the profession;

III – the professional relocates to a place that, at the discretion of the Regional Council, makes the exercise of this role impracticable;

IV – the professional has their registration cancelled;

V – other conditions occur that, at CREA's discretion, prevent the effective provision of technical assistance.

§1 – The legal entity must, within 10 (ten) days, appoint a new technical responsible.

§2 – When the cancellation of technical responsibility is initiated by the legal entity, it must, in the request, indicate the new technical responsible, meeting the requirements established in this Resolution, and submit the relevant documents.

§3 – The cancellation of technical responsibility requested by the professional can only be granted in the absence of any pending obligations in their name, related to the request, with the Regional Council.

CLAUSE FOUR: Monthly workload of eight hours, to be performed as needed.

CLAUSE FIVE: The CONTRACTING PARTY shall pay the CONTRACTED PARTY, for services effectively rendered, compensation equivalent to one minimum wage, converted into reais, which currently represents R\$ 600.00 (six hundred reais).

CLAUSE SIX: Payment shall be made monthly, due on the 5th of each month.

CLAUSE SEVEN: Jurisdiction: To resolve any disputes arising from this contract, the parties

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 2, 2025.

CONTRATO DE PRESTAÇÃO DE SERVIÇOS E OUTRAS AVENÇAS

CONTRATANTE: GEOPROSPEC GEOLOGIA E PROJETOS AMBIENTAIS LTDA., com sede na Av. Farrapos, 146 – conj. 62, Porto Alegre/RS, inscrita no CNPJ sob n.º 89.145.973/0001-22, neste ato sendo representada, na forma que dispõe seu contrato social devidamente registrado na Junta Comercial deste Estado sob n.º 43200656550, pelos seus Responsáveis Técnicos e Legais, Senhores **Eduardo Centeno Broll Carvalho**, brasileiro, maior, Geólogo, portador de cédula de identidade n.º 1080531278, CPF n.º 969684430-15, residente e domiciliado na cidade de Porto Alegre e **Ivanor Antonio Sinigaglia**, brasileiro, maior, casado, Engenheiro Agrônomo, portador da cédula de identidade n.º 1050204211, CPF n.º 615990930-49, residente e domiciliado em São Leopoldo, representantes estes que ao findo do presente contrato firmam em nome da **CONTRATANTE**.

CONTRATADO: RAFAEL LIMA DESSART, maior, brasileiro, Geólogo, com Carteira de Identidade n.º 2017712453, inscrito no CPF sob n.º 692 225 760 – 04, com Registro no CREA/RS n.º 12.6851-D, residente e domiciliado na Av. Independência, n.º 687/ Apto. n.º 401, Bairro Independência - CEP 90035-076, Porto Alegre/RS.

As partes acima identificadas, na melhor forma de direito, têm, entre si, justas e acertadas o presente Contrato de Prestação de Serviços e Outras Avenças, que se regerá pelas cláusulas seguintes e pelas condições de preço, forma e termo de pagamento, descritas no presente.

CLÁUSULA I – OBJETO

Ao **CONTRATADO** cabe a prestação dos serviços, de caráter profissional e técnico, a seguir descritos, para Levantamento do Meio Físico de uma área de extração localizada em Capão Bonito do Sul, da empresa ICCILA.

PARÁGRAFO PRIMEIRO: O objeto do presente contrato compreende os serviços a seguir descritos, a serem executados em conformidade com o Termo de Referência para Licenciamento Ambiental –Licença Prévia conforme TR da FEPAM, Versão Setembro 2012, contendo os seguintes itens:

- ✓ Identificação dos mananciais hídricos próximos (dimensão e vazão) e da respectiva bacia, visando a avaliação das condições qualitativas e quantitativas destes recursos (mapa e planta conforme definido nos itens 7.1 e 7.4 respectivamente);
- ✓ Descrição dos solos, suscetibilidade a erosão, geologia e geomorfologia local;
- ✓ Elaboração do Relatório Técnico Final dos serviços prestados na área;
- ✓ Anotação de Responsabilidade Técnica, junto ao CREA, sobre os serviços prestados.

CLÁUSULA II – DO PREÇO E FORMA DE PAGAMENTO

O presente serviço será remunerado pela quantia de R\$ 1.600,00 (um mil e seiscentos reais), referente aos serviços efetivamente prestados, devendo ser pago em dinheiro ou cheque, ou outra forma de pagamento em que ocorra a prévia concordância de ambas as partes, da seguinte forma:

- a) R\$ 800,00 (oitocentos reais), correspondente à primeira parcela a ser paga em até 05 (cinco) dias úteis, após a conferência e aceita por parte da gestora do projeto, Rita Guasina, do relatório técnico final;
- b) R\$ 800,00 (oitocentos reais), correspondente à segunda parcela a ser paga em até 20 (vinte) dias após o primeiro pagamento.

O não pagamento do referido valor ocasionará o pagamento de juros legais (1% ao mês) incidentes sobre o valor inadimplido, bem como correção monetária pela variação do IGPM/FGV, ficando a **CONTRATANTE** obrigada a pagar o valor acordado em atraso, sem que tal atraso tenha se dado por decorrência do não recebimento pela

CONTRATO DE PRESTAÇÃO DE SERVIÇOS

Partes:

A) **GEOMAP GEOLOGIA LTDA**, pessoa jurídica de direito privado, estabelecida na Rua Coronel Flores, 285, Bairro Centro, no município de Estrela, RS, inscrita no CNPJ 05.201.724/0001-17, Isento de Inscrição Estadual, Inscrição Municipal 11555.0, neste ato representado pelo Sócio-gerente Luiz Paulo Plentz, brasileiro, casado, residente e domiciliado na Rua Edvino Kilpp, nº 100, Bairro Oriental, município de Estrela, RS, CPF 437.540.070-68, RG 7030641621, expedida em 06/10/1982, órgão expedidor SSP/ RS, adiante denominado CONTRATANTE.

B) **RAFAEL LIMA DESSART**, pessoa física, brasileiro, casado, geólogo, registro CREA-RS nº RS126851D, residente e domiciliado na Av. Independência, 687 ap 401, Bairro Independência, no município de Porto Alegre/RS, CPF 692.225.760-04, RG 2017712452 expedida pela SJS/RS, adiante denominado CONTRATADO.

CLÁUSULA PRIMEIRA: O objeto do presente contrato é a prestação de serviços, pelo CONTRATADO à CONTRATANTE, de assumir a função de Responsável Técnico pela empresa na Consultoria técnica em geologia e laudos técnicos em geologia..

CLÁUSULA SEGUNDA: A vigência é por prazo indeterminado a contar de sua assinatura. É facultado às partes rescindirem o contrato com aviso por escrito com antecedência de 30 (trinta) dias.

CLÁUSULA TERCEIRA: A baixa da responsabilidade deverá ser comunicada ao CREA pela parte que teve a iniciativa imediatamente após o ocorrido, conforme a legislação: Resolução 336, do CONFEA, Art. 17 - A responsabilidade técnica de qualquer profissional por pessoa jurídica fica extinta, devendo o registro ser alterado, a partir do momento em que:

I - for requerido ao Conselho Regional, por escrito, pelo profissional ou pela pessoa jurídica, o cancelamento desse encargo;

II - for o profissional suspenso do exercício da profissão;

III - mudar o profissional de residência para local que, a juízo do Conselho Regional, torne impraticável o exercício dessa função;

IV - tiver o profissional o seu registro cancelado;

V - ocorram outras condições que, a critério do CREA, possam impedir a efetiva prestação da assistência técnica.

§ 1º - A pessoa jurídica deve, no prazo de 10 (dez) dias, promover a substituição do responsável técnico.

§ 2º - Quando o cancelamento da responsabilidade técnica for de iniciativa da pessoa jurídica, deve esta, no seu requerimento, indicar o novo responsável técnico, preenchendo os requisitos previstos nesta Resolução, e os documentos pertinentes.

§ 3º - A baixa de responsabilidade técnica requerida pelo profissional só pode ser deferida na ausência de quaisquer obrigações pendentes em seu nome, relativas ao pedido, junto ao Conselho Regional.

CLÁUSULA QUARTA: Jornada mensal de trabalho de oito horas, exercidas conforme necessidades.

CLÁUSULA QUINTA: A CONTRATANTE pagará ao CONTRATADO, pelos serviços efetivamente prestados, a importância equivalente a um salário mínimo, convertido em reais, representando nesta data R\$ 600,00 (Seiscentos reais).

CLÁUSULA SEXTA: O pagamento ocorrerá de forma mensal, com vencimento no dia 05 de cada mês.

CLÁUSULA SÉTIMA: Foro: Para solução de eventuais litígios oriundos deste contrato as partes



EMPLOYMENT CONTRACT

Internship Commitment Agreement

Rafael Lima DessatStudent of the **Geology** Program

Educational Institution:

**UNIVERSITY OF VALE DO RIO DOS
SINOS**

Host Organization:

Constr. Com. Camargo Corrêa S/AInternship Start Date: **01/20/01**

Fidelis Diniz
 MANAGER
Host Organization Signature
Internship End Date: **02/09/01**

Fidelis Diniz
 MANAGER
Host Organization Signature

 Internship for students following Law
 6.494/77 and Decree 82.497/82.

Signature of the employer or by proxy with witness

1st 2nd

Date of Termination of of 19.....

Signature of the employer or by proxy with witness

1st 2nd

Termination Note CD No.

EMPLOYMENT CONTRACTEmployer **Neo Corp Desenvolvimento de Projetos****05656777/0001-22**CGC/MF **NEO CORP****DESENVOLVIMENTO DE**Street **PROJETOS LTDA** No.

City State

RUA MARIANTE, 257 - CONJ 401**MOINHOS DE VENTO ZIP CODE**

Specification of the Establishment

Occupation **Physical Environment Designer****FORTO ALEGRE-RS**

CBO No.

Date of Hire **August 1, 2008**

Registration No. Pages/Record

Specified Remuneration **R\$ 1.684.00 (One thousand six
hundred eighty-four reais) * See page 42**

-----//signature//-----

Signature of the employer or by proxy with witness

1st 2ndDate of Termination **July 22, 2009**

-----//signature//-----

Signature of the employer or by proxy with witness

NEO CORP DESENVOLVIMENTO DE PROJETOS LTDA.1st 2nd

Termination Note CD No.

24	SALARY CHANGES	SALARY CHANGES	25
Increased on 02/01/2009 to Cr\$ R\$2,790.00	Increased on to Cr\$	Increased on to Cr\$	Increased on to Cr\$
In the position of Geologist	In the position of	In the position of	In the position of
CBO	CBO Due to	CBO Due to	CBO Due to
NOVA RAZÃO SOCIAL NEOCORP CONSULTORIA LTDA. -----//signature//-----	 Employer's signature	 Employer's signature	 Employer's signature
Increased on to Cr\$	Increased on to Cr\$	Increased on to Cr\$	Increased on to Cr\$
In the position of	In the position of	In the position of	In the position of
CBO Due to	CBO Due to	CBO Due to	CBO Due to
..... Employer's signature	 Employer's signature	 Employer's signature	 Employer's signature
Increased on to Cr\$	Increased on to Cr\$	Increased on to Cr\$	Increased on to Cr\$
In the position of	In the position of	In the position of	In the position of
CBO Due to	CBO Due to	CBO Due to	CBO Due to
..... Employer's signature	 Employer's signature	 Employer's signature	 Employer's signature
Increased on to Cr\$	Increased on to Cr\$	Increased on to Cr\$	Increased on to Cr\$
In the position of	In the position of	In the position of	In the position of
CBO Due to	CBO Due to	CBO Due to	CBO Due to
..... Employer's signature	 Employer's signature	 Employer's signature	 Employer's signature

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: July 03, 2025.

CONTRATO DE TRABALHO

Termo de Compromisso de Estágio
Rafael Lima Dessat
 Estudante do Curso de **Geologia**
 Instituição de Ensino
UNIVERSIDADE DO VALE DO RIO DOS
SINOS

Concedente

Constr. Com. Camargo Corrêa S/A

Início do Estágio **20/01/01**

Fidelis Diniz
 ADMINISTRADOR

Assinatura Concedente

Termino do Estágio, **09/02/01**

Fidelis Diniz
 ADMINISTRADOR

Assinatura Concedente

Estágio de Estudantes de acordo
 com a Lei 6494/77 e Dec. 82497/82.

Ass. do empregador ou a rogo c/test.

1º 2º

Data saída de de 19

Ass. do empregador ou a rogo c/test.

1º 2º

Com. Dispensa CD Nº

CONTRATO DE TRABALHO

05656777/0001-22

Empregador
NEOCORP DESENVOLVIMENTO
CGCMF DE PROJETOS LTDA.

Rua **RUA MARIANE, 257 - CONJ 401** Nº

Município **MOJINHOS DE VENTO** CEP. **90430-151**

Ass. do estabelecimento **PORTO ALEGRE - RS**

Cargo **Projetista em Meio Físico**

CBO nº

Data admissão **01** de **Agosto** de **2008**

Registro nº Fls./Ficha

Remuneração especificada **R\$ 1.684,00 (Hum**

mil seiscentos oitenta

quatro reais) * Vide Pág. 42

Ass. do empregador ou a rogo c/test.

Ass. do empregador ou a rogo c/test.

1º 2º

Data saída **22** de **Setembro** de **2009**

NEOCORP DESENVOLVIMENTO DE PROJETOS E SERVIÇOS LTDA.

1º 2º

Com. Dispensa CD Nº

ALTERAÇÕES DE SALÁRIO

Aumentado em 01, 02, 2009 Para Cr\$ 2.790,00

Na função de GEÓLOGO

CBO por motivo de

NOVA RAZÃO SOCIAL:
NEOCORP CONSULTORIA LTDA

Assinatura do empregador

Aumentado em / / Para Cr\$

Na função de

CBO por motivo de

Assinatura do empregador

Aumentado em / / Para Cr\$

Na função de

CBO por motivo de

Assinatura do empregador

Aumentado em / / Para Cr\$

Na função de

CBO por motivo de

Assinatura do empregador

ALTERAÇÕES DE SALÁRIO

Aumentado em / / Para Cr\$

Na função de

CBO por motivo de

Assinatura do empregador

Aumentado em / / Para Cr\$

Na função de

CBO por motivo de

Assinatura do empregador

Aumentado em / / Para Cr\$

Na função de

CBO por motivo de

Assinatura do empregador

Aumentado em / / Para Cr\$

Na função de

CBO por motivo de

Assinatura do empregador

Exhibit C.I: NIW - First Prong

EarthLog Consulting

2025

Business PLAN



 **NAME:** Rafael Lima Dessart
 **PHONE:** +55 (51) 998020840
 **E-MAIL:** rldessart@gmail.com
 **POSITION:** Chief Executive Officer

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1. Executive Summary

1.1 Nature and Scope of Business

EarthLog Consulting, Limited Liability Company (LLC) proposes a specialized environmental and geological consulting firm to be established in Orlando, Florida. The company's mission is to deliver advanced, technology-driven geoscience solutions that protect natural resources, support sustainable water management, and ensure geotechnical stability in critical infrastructure projects. Leveraging cutting-edge applied geophysics and hydrogeological methods, EarthLog Consulting seeks to address complex environmental challenges with precision. By situating its headquarters in Florida, a state experiencing rapid population growth, urban expansion, and climate-driven vulnerabilities the firm is strategically positioned to meet high and growing demand for specialized environmental and geological services.

1.2 EarthLog Consulting Services

EarthLog Consulting differentiates from traditional environmental consulting firms through the delivery of highly specialized technical services grounded in advanced research and proprietary methodologies.

Core services include:

- **Hydrogeological studies** employing innovative applied geophysics for groundwater characterization
- **Advanced environmental impact assessments (EIA)** for sensitive ecosystems
- **Remote sensing and Geographic Information Systems (GIS)** for risk analysis
- **Detailed geotechnical mapping** for construction and mining industries
- **Integration of custom-developed data processing algorithms and modeling tools,** providing unprecedented accuracy in mapping subsurface conditions.

- **Research and Innovation Development**, establishing partnerships with universities and research institutes to integrate cutting-edge resilience science into commercial practice.

Custom-developed algorithms and modeling tools filter noise, process large volumes of raw geophysical and remote sensing data, and integrate multiple sources into accurate 2D and 3D subsurface models. These tools provide a clearer representation of underground conditions compared to conventional survey methods. They reduce the need for extensive physical drilling, making projects faster, more cost-effective, and less environmentally invasive. By technology-oriented, the company emphasizes the use of advanced geophysical equipment and digital data-analysis tools that enable faster, more precise, and cost-efficient environmental assessments. As a result, they enable predictive simulations and data-driven decision-making for both public and private clients.

With a Ph.D. trained founder in Hydrogeology and Applied Geophysics, EarthLog Consulting will deploy proprietary data-processing algorithms and AI-enhanced geophysical modeling methods to generate three-dimensional, decision-grade subsurface maps. This capability positions the firm to meet the growing U.S. demand for high-resolution analytics that combine remote sensing, geophysical data, and GIS in ways large generalist firms cannot match.

1.3 Business Details

The enterprise will formally establish as a LLC in Orlando, Florida, under the name EarthLog Consulting. The firm will follow a lean, technology-oriented, and research-backed operational model designed to deliver high-value consulting services without the overhead inefficiencies of large multinational firms. This structure ensures flexibility, agility, and the ability to offer customized solutions tailored to client-specific needs in both the private and public sectors.

1.4 Main Targets

The primary clients for EarthLog Consulting include:

- **Mining companies** - requiring advanced geophysical and environmental assessments to ensure safe operations and regulatory compliance.
- **Civil engineering firms** - needing precise subsurface data to optimize infrastructure design and reduce project risks.
- **Environmental Law Offices** - providing technical support in regulatory cases, compliance disputes, and permitting submissions.
- **Renewable energy developers** - depending on accurate site evaluations for solar, wind, and geothermal projects, directly supporting the U.S. energy transition.
- **Real estate developers** - seeking cost-efficient environmental due diligence and land-use assessments for sustainable growth.
- **Local, state, and federal government agencies** - demanding high-quality consulting services to manage natural resources, monitor environmental risks, and oversee compliance in public projects.

1.5. Dr. Rafael Lima Dessart's Expertise

Dr. Rafael Lima Dessart, Founder and Principal Consultant of EarthLog Consulting, brings over a decade of experience in Hydrogeology and Applied Geophysics, Remote Sensing, and Environmental Consulting. His expertise spans the design and implementation of advanced methodologies for groundwater research, structural mapping, geotechnical assessments, and environmental impact studies across a wide range of sectors, including infrastructure, mining, energy, and water resources.

He holds a strong academic foundation in Geosciences and has developed three proprietary methods of geophysical data processing that significantly improve subsurface interpretation capabilities, enabling more accurate, efficient, and sustainable environmental solutions. In addition, he is proficient in leading geoscientific tools and platforms, including:

- Oasis Montaj (advanced geophysical modeling)
- Res2DInv / Res3DInv (resistivity data inversion)
- MODFLOW & FEFLOW (hydrogeological flow modeling)
- ArcGIS / QGIS (geospatial analysis)

- ENVI & Google Earth Engine (remote sensing and big-data geospatial processing).

Dr. Dessart distinguishes himself not only through his technical command but also through his ability to integrate applied science with market needs, aligning consulting solutions with regulatory frameworks and sustainability goals in the United States.

His academic and scientific trajectory includes **relevant publications in groundwater prospecting, aquifer structural characterization, and the integration of geophysical methods into environmental management**, reinforcing his status as a highly qualified and innovative expert.

Education

- **Ph.D. in Environmental Studies** – Federal University of Rio Grande do Sul (UFRGS), 2017–2022 *Dissertation: Integration of Geophysical and Structural Data in Hydrogeological Investigation in Bagé/RS, Brazil*
- **M.Sc. in Geology** – University of Vale do Rio dos Sinos (UNISINOS), 2005–2009 *Thesis: Stratigraphic Characterization of the Fill of the Incised Valley of the Lower Rio Doce during the Late Pleistocene–Holocene*
- **Postgraduate Specialization in Georeferenced Spatial Information** – UNISINOS, 2012–2013
- **B.Sc. in Geology** – UNISINOS, 1997–2003. *Thesis: Subsurface Geology of the Capané Watershed, Cachoeira do Sul-RS*

Professional Experience

- **Independent Environmental Geology Consultant (DGEO) – Brazil, 2016–Present**
Lead consultant providing hydrogeological and environmental assessments, deep well siting and permitting, EIAs, RIMAs, RAPs, RCA/PCA, compliance audits, and contaminated land management. Supports infrastructure, mining, and civil construction projects.
- **Entrepreneurship in the U.S. – Real Estate Investment Business (2017 – 2019)** Opened and managed an investment venture in the United States, demonstrating adaptability,

resilience, and familiarity with the American business environment. Gained practical knowledge of the regulatory and operational framework in Florida, further preparing him for the establishment of EarthLog Consulting.

- **Visiting Professor – Federal University of Pampa (UNIPAMPA), 2013–2015**
Taught courses in Hydrogeology, Remote Sensing, Digital Image Processing, Earth Systems, Climatology, Hydrology, GIS, and Environmental Engineering. Supervised undergraduate research and published peer-reviewed scientific work.
- **Consultant Geologist – FTGeo Consulting, 2013**
Conducted RCA/PCA, RAL, geophysical surveys (electrical resistivity), groundwater exploration, deep well permitting, environmental licensing, geotechnical assessments.
- **Project Geologist – Geomap Geologia LTDA, 2011–2013**
Environmental licensing for mining and construction, fuel station liabilities, geotechnical reports, GIS/database management.
- **Project Geologist – Neocorp Project Development LTDA, 2008–2009**
Performed EIAs/RIMAs, soil & water contamination analysis, sanitary landfill and hydropower siting, geophysical surveys (GPR, bathymetry).
- Geologist – UNISINOS / R&D support in Geological projects, 2005–2008
- Research Assistant – CNPq (1999–2000) & CAPES (1998)

Areas of Expertise

- Hydrogeology (crystalline aquifers, groundwater exploration & management)
- Applied Geophysics (aero magnetometry, resistivity, GPR)
- Environmental Geology (EIA/RIMA, contamination analysis, compliance)
- GIS & Remote Sensing (spatial modeling, geoprocessing)
- Engineering Geology & Geotechnics

Selected Complementary Training

- Applied Geophysics in Groundwater Contamination (2019)

- Geological-Geotechnical Investigations for Infrastructure (2018)
- Gamma-Spectrometry in Mineral Exploration – UNIPAMPA (2017)
- The Dynamic Earth: A Course for Educators – AMNH, New York (2015)
- Remote Sensing – INPE, Brazil (112 hours, 2014)

Publications (Selected)

- Rafael, Lima, Pereira – Groundwater Prospecting from Structural Analysis in Bagé, RS, Brazil. *Boletim Goiano de Geografia*, 43:1–22, 2023.
- Rafael, Reginato, Gallas – Use of Aeromagnetic and Electromagnetic Data for the Evaluation of Fractured Aquifers in the Crystalline Basement. *Águas Subterrâneas*, 37:1–18, 2023.
- Rafael, Reginato, Gomes – Structural Compartmentalization of the Crystalline Basement Aquifer System, Bagé (RS), Brazil. *Águas Subterrâneas*, 34:1–13, 2020.
- Gomes, Rafael et al. – Remote Sensing Analysis of Meander Migration in the Mamorecillo River, Bolivia. *IJAERS*, 5:221–228, 2018.
- Gomes, Rafael et al. – Geochemical Analyses of Water and Public Health (Caçapava do Sul, RS). *Revista Ambiente & Água*, 12:760, 2017.

Conferences & Presentations (Highlights)

- Structural Compartmentalization of the Crystalline Aquifer, Bagé (RS) – IX Uruguayan Congress of Geology, Trinidad, Uruguay (2019).
- Integration of Geophysical and Structural Data in Hydrogeological Studies of Bagé/RS – Graduate Seminar, UFPR, Curitiba, Brazil (2017).

Peer-Review & Academic Contributions

- Journal referee: *Creative Education* (2017–Present), *REM – International Engineering Journal* (2017–Present).
- Multiple undergraduate thesis supervisions and evaluation boards.

Through his track record in both South America and the U.S., Dr. Dessart has consistently delivered value by integrating science, technology, and innovation into actionable solutions that meet regulatory standards and support environmentally responsible growth. These qualities form

the foundation of EarthLog Consulting’s mission to provide **nationally relevant**, high-impact environmental consulting services in the United States.

2. Industry and Market Analysis

2.1. Industry Analysis

2.1.1 Market Analysis for Environmental Consulting and Applied Geosciences

The U.S. environmental consulting market represents a substantial and steadily expanding industry that underpins national efforts in infrastructure development, environmental protection, and sustainable growth. According to recent industry reports, the U.S. environmental consulting sector was valued at approximately **\$40–45 billion in 2024¹**, with projections indicating growth to **over \$60 billion by 2032**, reflecting a compound annual growth rate (CAGR) of 4.5–5.0%.² This expansion is fueled by escalating regulatory standards, climate-related vulnerabilities, and the critical role of environmental compliance in federally and state-mandated projects. Within this broad sector, demand for **applied geoscience services** including subsurface investigation, hydrogeology, and geotechnical engineering has intensified, with analysts estimating it constitutes **over 25–30% of total market revenues³**, as advanced site characterization and risk assessment increasingly become prerequisites for project approvals and long-term resource management.

Key Drivers of Demand

Several structural factors explain the growth trajectory of this industry:

- **Water Resource Security:** Recurring droughts in the U.S. Southwest, seawater intrusion in coastal aquifers, and competing demands between agricultural, urban, and industrial sectors have elevated the importance of **hydrogeological studies** supported by applied geophysics. Municipalities and developers increasingly rely on accurate subsurface evaluations to secure water supplies.

¹ <https://www.statista.com/topics/5840/environmental-consulting/>

² <https://www.ibisworld.com/united-states/market-research-reports/environmental-consulting-industry>

³ <https://www.statista.com/topics/5840/environmental-consulting/>

- **Soil and Groundwater Remediation:** The U.S. Environmental Protection Agency (EPA) currently tracks over **53 million acres of contaminated land**, including thousands of Superfund-designated sites. Applied geoscience techniques such as electrical resistivity imaging and ground-penetrating radar are increasingly used to delineate contamination plumes, monitor remediation, and safeguard public health.
- **Infrastructure Resilience and Climate Change:** Recurrent flooding, sinkholes, and other geohazards cost the U.S. economy billions annually. The American Society of Civil Engineers' 2021 Infrastructure Report Card assigned U.S. infrastructure a **C- rating**, underscoring vulnerability to environmental stress. As climate change accelerates extreme weather impacts, **geotechnical mapping and subsurface modeling** are indispensable for designing resilient transportation networks, energy infrastructure, and urban developments.
- **Sustainable Urban Expansion:** The U.S. Census Bureau projects that **82% of the U.S. population will live in metropolitan areas by 2035⁴**, necessitating urban expansion into geologically complex or environmentally sensitive zones. This trend demands comprehensive geological and hydrogeological risk assessments to reduce environmental impact while enabling cost-effective construction.

Key Trends

- **Integration of Advanced Technologies:** Remote sensing, Geographic Information Systems (GIS), and proprietary geophysical data-processing models are transforming the accuracy of subsurface mapping, risk detection, and resource assessment. Firms offering integrated datasets and predictive modeling capabilities are increasingly favored.
- **Regulatory and Policy Pressures:** Federal initiatives such as the **Infrastructure Investment and Jobs Act (2021)** earmark over **\$550 billion in new funding⁵** for

⁴ <https://www.census.gov/programs-surveys/popproj.html>

⁵ <https://www.congress.gov/bill/117th-congress/house-bill/3684>

infrastructure and environmental projects, emphasizing the need for specialized geoscience consulting services.

- **Shift from Compliance to Risk Prevention:** Large-scale developers, insurers, and municipalities are moving from minimum environmental compliance toward proactive **risk management strategies**. Applied geoscience plays a decisive role in preventing costly project delays and environmental lawsuits.
- **Decentralization of Energy and Water Projects:** Expansion of **renewable energy** (wind, solar, geothermal) and **distributed water management projects** requires site-specific geological surveys, further boosting demand for expertise in subsurface characterization.

National Importance

The expanding demand for environmental consulting and applied geoscience services directly corresponds to pressing national priorities: securing reliable water resources, remediating legacy contamination, protecting communities from geohazards, and enabling climate-resilient infrastructure. These priorities intersect with national interests in **public health, environmental security, and economic competitiveness**. By addressing water scarcity in arid regions, ensuring safe redevelopment of contaminated land, and fortifying infrastructure against climate impacts, the sector underpins both immediate community well-being and the long-term sustainability of U.S. economic development. Its projected growth confirms that advanced geoscience consulting is not merely a commercial field but a sector of **strategic national importance**.

2.1.2 Customer Needs

Clients in the infrastructure, energy, mining, and real-estate sectors share a common imperative: they must understand subsurface conditions with a level of accuracy that conventional “desktop” geology or limited borehole sampling cannot deliver. **Transportation departments** need to verify load-bearing capacity and karst voids beneath highways and bridges; **energy developers** must site transmission corridors and renewable facilities where ground stability, groundwater flow, and induced-seismicity risks are fully quantified; mining operators require

three-dimensional delineation of ore bodies and overburden to optimize extraction while meeting strict environmental compliance; and **real-estate developers in high-growth metros** such as Orlando must defend against sinkhole liability, shallow groundwater, and storm-surge infiltration before investors will release capital. **Each of these use-cases demands data that is spatially continuous, rapidly obtained, and defensible in regulatory or litigation settings.**

Generic geological assessments typically limited to literature review, sparse soil borings, and one-time groundwater sampling are inadequate for three principal reasons. **First**, point-based methods miss lateral heterogeneities such as discontinuous clay lenses or solution channels that control contaminant migration and structural stability. **Second**, intrusive drilling programs are slow, expensive, and may cause environmental disturbance that triggers additional permitting. **Third**, static data snapshots fail to capture temporal dynamics (e.g., seasonal groundwater fluctuations, pore-pressure changes under new loads) that determine long-term performance of infrastructure and environmental remedies. The result is costly project redesigns, regulatory delays, and, in worst cases, structural failure or environmental harm.

An integrated, technology-driven approach combining near-surface geophysics, remote sensing, and advanced GIS analytics directly addresses these shortcomings. Techniques such as electrical resistivity tomography, multichannel analysis of surface waves, ground-penetrating radar, and frequency-domain electromagnetics deliver continuous, three-dimensional images of subsurface stratigraphy, voids, and contaminant plumes without invasive drilling. High-resolution LiDAR (Light Detection and Ranging), synthetic-aperture radar, and multispectral satellite imagery extend coverage to regional scales and detect subtle ground deformation or vegetation stress indicative of hidden geohazards. When these datasets are fused in a GIS environment using proprietary inversion and machine-learning algorithms, an EarthLog Consulting specialty, clients receive actionable models that quantify uncertainty, simulate future conditions, and optimize engineering designs or remediation plans.

The economic and operational impacts are significant: studies by the Federal Highway Administration show **geophysical pre-screening can reduce unforeseen subsurface-condition change orders by up to 30 %**⁶, while EPA pilot projects demonstrate that integrating resistivity

⁶ <https://highways.dot.gov/research/program-areas/geotechnical/subsurface-utility-engineering>

imaging with conventional monitoring cuts remediation time frames by 20–40 %⁷. For developers, early detection of geotechnical risks can accelerate project approvals by several months and prevent multimillion-dollar litigation tied to ground failure. Importantly, non-invasive diagnostics align with modern ESG mandates by minimizing site disturbance and carbon footprint.

By delivering this integrated suite, geophysics for depth-resolved precision, remote sensing for regional context, and GIS analytics for decision-grade visualization, EarthLog Consulting provides stakeholders with a level of risk mitigation and cost efficiency unattainable through generic geological assessments. This technology-forward methodology not only reduces project uncertainty and life-cycle cost but also supports national objectives of infrastructure resilience, environmental stewardship, and sustainable economic growth.

2.1.3 Trends and Opportunities

- **Integration of AI and Advanced Data Analytics in Geospatial Modeling:** The U.S. environmental and engineering consulting industries are undergoing rapid tech evolution, with **artificial intelligence (AI) and advanced data-driven analytics** increasingly at the forefront of subsurface characterization, environmental monitoring, and infrastructure planning. Federal and state agencies now expect consultants to produce not just static maps, but **predictive models** capable of informing long-term policy and investment decisions. AI-powered inversion algorithms, machine learning for geospatial anomaly detection, and integrated hydrogeological simulations are becoming integral to project delivery. Traditional firms often still rely on conventional field approaches that lack predictive capacity.
- **Rising Regulatory Demand for Rigorous Environmental Impact Assessments (EIA):** Compliance pressures are intensifying as both the **National Environmental Policy Act (NEPA)** and state-level laws demand rigorous, science-based environmental impact assessments. The Infrastructure Investment and Jobs Act, combined with federal climate adaptation initiatives, has increased scrutiny on project approvals for civil engineering, energy, and urban expansion efforts. Regulators now require sophisticated datasets to confirm that

⁷ <https://clu-in.org/characterization/technologies/geophysics/>

groundwater, ecosystems, and public safety are not compromised, and fines or injunctions for insufficient documentation are increasingly common.

*EarthLog Consulting specialized capacity for **hydrogeological studies, geotechnical risk evaluation, and contamination analysis using geophysical methods** places it in an ideal position to serve developers, mining companies, and municipalities needing to meet heightened EIA standards. By providing **non-invasive, high-precision diagnostics**, EarthLog accelerates regulatory approvals, reduces liability, and helps clients avoid costly delays while at the same time supporting federal goals for environmental security and compliance.*

- **Expanding Demand for Sustainable Water Resource Management:** Water scarcity and contamination represent some of the most urgent national challenges. The **U.S. Drought Monitor** reports chronic aquifer depletion and saltwater intrusion in states such as California, Texas, and particularly **Florida**, where rapid urbanization and sea-level rise intersect. Federal resilience programs and state water management districts are increasingly contracting advanced consulting support to protect public health and the economy by ensuring a secure water future. Effective resource management depends on **continuous, non-destructive hydrogeological monitoring and predictive modeling** that go beyond conventional well logs or manual sampling.

*With deep expertise in **hydrogeology and applied geophysics**, the EarthLog Consulting can provide **cutting-edge water resource studies** that map aquifer conditions, track contaminant migration, and quantify recharge capacity with far greater accuracy than traditional methods. Municipal and state agencies face growing challenges in managing groundwater and ensuring reliable water supply. EarthLog Consulting addresses these needs by providing advanced hydrogeological studies and monitoring solutions that help governments safeguard resources, meet regulatory requirements, and plan resilient infrastructure.*

Together, these trends underscore an industry rapidly evolving toward **technology integration, regulatory rigor, and sustainable water resilience**. EarthLog Consulting, is uniquely positioned to capitalize on each shift: leveraging AI-enhanced geophysical methods for advanced geospatial modeling, applying specialized scientific expertise to fulfill tightening regulatory requirements, and delivering innovative hydrogeological services for long-term water security. By aligning its operation with these national drivers, EarthLog Consulting not only enters a growing market but also delivers **tangible contributions to U.S. environmental security and infrastructure sustainability**.

Industry Importance:

- **Integration of AI and Advanced Data Analytics in Geospatial Modeling**
The U.S. engineering and environmental consulting sectors are experiencing a decisive shift toward technology-driven precision. Federal agencies, including the Department of Transportation and the Environmental Protection Agency, increasingly rely on predictive, data-rich geospatial models to guide infrastructure and environmental policy. Traditional field assessments, once sufficient, are no longer adequate to meet this demand. The growing need for AI-enhanced, three-dimensional subsurface modeling underscores the national importance of specialized geoscience capabilities. *EarthLog Consulting's deployment of proprietary algorithms and advanced geophysical methods directly supports this transition by providing more accurate, defensible, and cost-effective diagnostics for infrastructure and environmental projects critical to U.S. competitiveness.*
- **Rising Regulatory Demand for Rigorous Environmental Impact Assessments (EIA)**
The nationwide expansion of infrastructure, energy, and real estate development has intensified regulatory scrutiny. Projects governed by the **National Environmental Policy Act (NEPA)** and state-level statutes are increasingly required to produce detailed assessments backed by scientific evidence. Inadequate analysis often results in permitting delays or litigation, with direct consequences for economic and public interests. The U.S. government has made clear that environmental compliance is not optional, but a precondition for advancing projects of regional and national scale. *By providing advanced impact assessment tools—grounded in*

hydrogeology, applied geophysics, and GIS modeling—EarthLog Consulting offers U.S. agencies and private developers the high-standard analyses needed to comply with these mandates, enabling faster, safer, and more sustainable project delivery.

- **Sustainable Water Resource Management**

Water scarcity and contamination have emerged as defining environmental and economic challenges across the U.S., with states like Florida, California, and Texas facing aquifer depletion, saltwater intrusion, and contamination hazards affecting millions of residents. Securing long-term access to clean water is central to national health, environmental security, and economic stability. Traditional well-log data and sampling methods cannot provide the predictive, regional-scale insights required to plan for population growth and climate change pressures. *EarthLog Consulting's expertise in hydrogeology and advanced, non-invasive subsurface monitoring directly advances national water security goals by equipping municipalities, federal programs, and private sectors with tools to manage, protect, and sustain critical aquifer resources.*

Each of these industry forces, technological transformation, regulatory rigor, and water resource security, constitutes an issue of substantial merit and national importance for the United States. They extend well beyond localized or private-sector interests, touching directly on public safety, economic competitiveness, environmental protection, and long-term national resilience. By applying specialized scientific expertise to these priorities, EarthLog Consulting provides solutions that meaningfully advance urgent U.S. goals in sustainability, infrastructure development, and resource security.

2.1.4 Strategic National Benefit

Beyond the financial impact, these hires create **STEM-based technical positions**, roles that strengthen U.S. expertise in **environmental security, hydrogeology, climate resilience, and applied geophysics**. By centering operations in Florida, a region with rapid population growth, high geohazard risk, and pressing water security needs, EarthLog Consulting's work directly helps the U.S. government achieve its major goals in environmental protection, infrastructure

development, and climate change resilience. Specifically, EarthLog Consulting services are essential for:

- **Meeting Environmental Review Laws (NEPA):** providing the scientific data and analysis needed for projects to comply with the National Environmental Policy Act (NEPA), which requires federal agencies to assess the environmental impact of their actions. This ensures that new roads, bridges, or energy projects are built responsibly.
- **Cleaning Up Pollution (EPA Remediation):** supporting the Environmental Protection Agency's (EPA) efforts to clean up contaminated sites (like Superfund sites or brownfields). Specialized techniques help identify and address pollution, making communities safer and land usable again.
- **Adapting to Climate Change (IIJA Funding):** contributing to projects that help the country prepare for and respond to the effects of climate change, such as rising sea levels, extreme weather, or water scarcity. Many of these critical projects are now receiving significant funding from the Infrastructure Investment and Jobs Act (IIJA).

EarthLog Consulting's services are not just for private clients; they are a direct and necessary component for the U.S. government to fulfill its legal environmental obligations and build resilient infrastructure.

2.2. Market Analysis

2.2.1 Introduction

EarthLog Consulting will initially establish operations in **Orlando, Florida**, a rapidly growing metropolitan hub at the intersection of major infrastructure development, energy expansion, real estate investment, and environmental management needs. Florida's accelerated urbanization, susceptibility to groundwater challenges, and exposure to geohazards such as sinkholes and coastal erosion make the region an epicenter for demand in advanced geotechnical and environmental consulting services. From this strategic location, the firm is positioned to extend its reach throughout the **broader Southeastern United States**, a region characterized by sustained population growth, extensive infrastructure investments, and mounting climate-related vulnerabilities.

The firm's clientele will consist of **public and private entities engaged in large-scale, high-stakes projects**, including state and federal agencies, mining and energy developers, civil engineering firms, and major real estate and infrastructure investors. These stakeholders face rigorous regulatory environments and cannot afford the risks associated with inaccurate or incomplete subsurface evaluations. They demand **cutting-edge methodologies, non-invasive diagnostics, and defensible data** to guide multi-million-dollar decisions on infrastructure stability, environmental compliance, and long-term resource management. By offering integrated expertise in geophysics, hydrogeology, and advanced geospatial analytics, EarthLog Consulting meets the precision, reliability, and innovation standards required by this demanding market.

2.2.2 Orlando, Florida: Strategic Location Analysis

- **Rapid Urban Development and Population Expansion**

Orlando ranks among the fastest-growing metropolitan areas in the United States. According to demographic data, the **Orlando MSA had a population of 2.94 million in 2024**, with an annual growth rate of **2.7%⁸**, nearly twice the national average. This makes the region one of the **top five fastest-growing metros in the U.S.** The area's comparatively young median age (**38.9 years**) and a highly educated workforce (over **38% holding a bachelor's degree or higher**)⁹ further enhance the region's suitability for science and technology-driven consulting enterprises. With **gross annual sales reaching \$57.2 billion** and a **median household income of \$77,378¹⁰**, the Orlando economy generates sustained demand for civil engineering, environmental, and infrastructure projects requiring advanced geoscience support.

- **Exposure to Environmental Risks**

Orlando's rapid growth is set against a backdrop of significant **geological and environmental vulnerabilities**. Central Florida's **karst geology** creates persistent risks of subsidence and sinkhole activity that threaten roads, real estate developments, and public utilities. In addition, the state's **aquifers face contamination threats** from past industrial use and rising

⁸ <https://www.census.gov/quickfacts/orlando-city-florida>

⁹ <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/>

¹⁰ <https://www.bea.gov/data/gdp/gdp-metropolitan-area>

groundwater demand¹¹, while **sea-level rise and storm surge** threaten long-term water quality across the region. These risks reinforce demand for **advanced hydrogeological and geophysical studies**, services that EarthLog Consulting is uniquely qualified to deliver through integrated methodologies.

- **Infrastructure Growth and Investment**

Orlando and the broader Florida market are currently absorbing unprecedented levels of infrastructure investment. With **gross sales exceeding \$57 billion annually**¹² and substantial federal allocations through the **Infrastructure Investment and Jobs Act (IIJA)**¹³, Florida is seeing holistic development across highways, airports, public transportation, and urban resilience projects. The demand for **geotechnical mapping, advanced environmental impact assessments, and predictive modeling** has risen in parallel with this development surge. The state's **wage growth of 4.6%**¹⁴ also signals a robust economic trajectory that attracts both workforce and capital to this region.

- **Regulatory and Compliance Landscape**

Florida's regulatory framework adds another layer of demand for scientifically rigorous consulting. Agencies such as the **Florida Department of Environmental Protection (FDEP)** and the **regional Water Management Districts** enforce stringent requirements for **environmental permitting and resource protection**, particularly on projects intersecting groundwater systems, wetlands, or coastal contexts. This drives direct demand for consulting firms capable of producing **defensible, high-resolution datasets** services EarthLog Consulting will provide through non-invasive geophysical technologies, advanced GIS analytics, and proprietary data-processing models.

¹¹ <https://floridadep.gov/fgs/fgs/content/ground-water>

¹² <https://www.bea.gov/data/gdp/gdp-metropolitan-area>

¹³ <https://www.transportation.gov/infrastructure-investment-jobs-act>

¹⁴ https://www.bls.gov/regions/southeast/news-release/employmentandwages_florida.htm

- **Florida as an Ideal Market for High-End Geoscience Consulting**

The data confirms Orlando as not just a high-growth local market but a **strategic platform for the Southeastern United States**, where comparable challenges, rapid urbanization, aquifer stress, and climate-linked vulnerabilities are widespread. With its integration of **applied geophysics, hydrogeology, and advanced remote sensing**, EarthLog Consulting will fill a market gap between multinational firms (expensive, bureaucratic) and traditional regional consultants (conventional, limited tools). By situating in Florida, the firm can immediately address **environmental security, water resource resilience, and infrastructure stability**.

Comparative Market Attractiveness: Orlando vs. Other U.S. Metros

Metropolitan Area	Population 2024	Growth Rate %	Median Household Income	Gross Sales (\$B)	Market Attractiveness Score	Environmental Consulting Demand
Orlando MSA	2,940,513	2.70%	\$77,378	\$57.2B	9.2	High – Development boom, water management needs
Houston MSA	7,600,000	1.80%	\$63,000	\$660B	7.8	Very High – Energy sector
Denver MSA	2,963,821	1.40%	\$80,184	\$180.5B	7.5	High – Natural resources, federal projects
Tampa MSA	3,342,963	2.10%	\$59,734	\$125.8B	6.8	Medium-High – Coastal development
Miami MSA	6,138,333	1.60%	\$57,091	\$180.2B	6.5	Medium – Urban development pressure

Key Findings:

- **Fastest Growth:** Orlando leads all markets with **2.7% annual growth**, significantly above Houston (1.8%) and Miami (1.6%).¹⁵ This rapid pace accelerates demand for real estate, infrastructure, and water-resource solutions, multiplying the need for EarthLog’s services.
- **Higher-Income Market:** Orlando’s **median household income of \$77,378** surpasses Miami and Tampa, indicating stronger purchasing power and higher budget allocations for advanced technical consulting.
- **Market Attractiveness Score:** Orlando ranks **highest nationally (9.2/10)** among compared metros for *market attractiveness*, showing optimal conditions for environmental consultancy.¹⁶

¹⁵ <https://www.census.gov/quickfacts/orlando-city-florida>

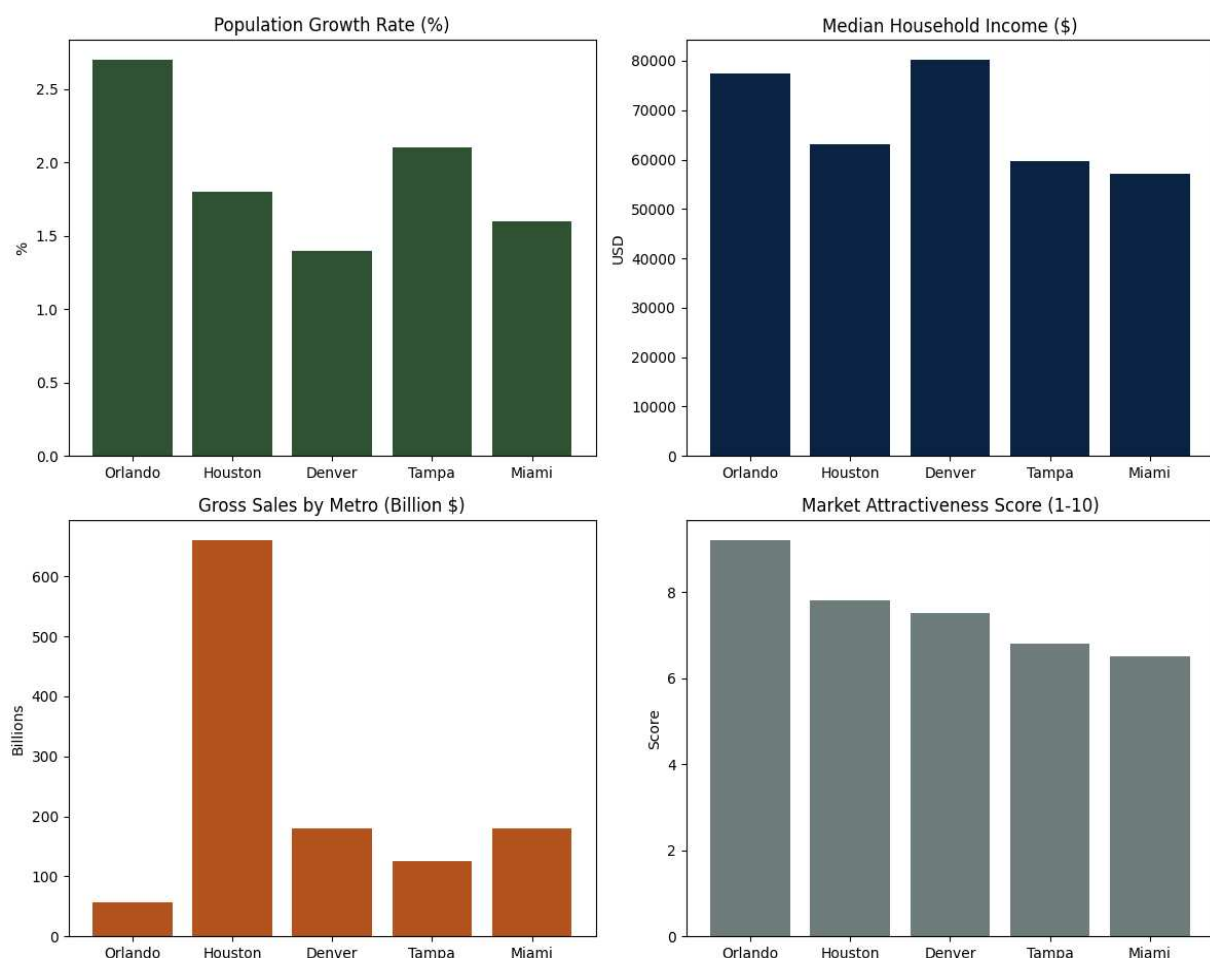
¹⁶ <https://www.bea.gov/data/gdp/gdp-metropolitan-area>

- **Environmental Consulting Demand:** Orlando’s drivers include **rapid development, sinkhole vulnerability, and water management** issues requiring advanced, technology-driven characterization methods unavailable through generic consultancy approaches.

2.2.3 Strategic Justification for Orlando

While Houston dominates in scale (\$660 billion gross sales), its market is energy-sector concentrated, with numerous entrenched incumbents. Miami and Tampa face environmental risks but rank lower in attractiveness due to slower growth and lower median incomes. Orlando, by contrast, combines **fastest growth, highest attractiveness index, superior income levels, and acute geotechnical risks**, making it the most compelling headquarters location for EarthLog Consulting’s U.S. launch.

Comparative Market Analysis for Environmental Consulting



The comparative **multi-chart analysis** is showing Orlando vs. Houston, Denver, Tampa, and Miami across:

- **Population Growth Rate (%)**
- **Median Household Income (\$)**
- **Gross Sales (\$B)**
- **Market Attractiveness Score (1–10)**

*Orlando ranks **highest in attractiveness (9.2)** and **fastest growing (2.7%)**, while also combining **strong household income** and **unique geotechnical risks** that directly fuel demand for advanced geoscience consulting.*

2.3. Opportunities in the U.S. Market

2.3.1 Competitive Differentiation

The U.S. environmental consulting and applied geosciences market is fragmented between large multinational firms and smaller regional consultancies. **Multinational firms** such as Jacobs, AECOM, and Tetra Tech dominate federal contracting and large infrastructure projects prioritizing scale over flexibility, relying on bureaucracy-driven project pipelines and standardized methods that can limit project responsiveness. **Regional firms**, in contrast, typically provide lower-cost services focused on regulatory compliance but lack access to advanced tools beyond limited soil borings, well monitoring, or outsourced geophysical surveys. These firms frequently depend on invasive, time-consuming, and less precise methods, leaving a significant market gap for mid-sized projects that require **advanced, accurate, and non-invasive diagnostics** at competitive costs.

EarthLog Consulting is positioned to fill this gap. The firm integrates **hydrogeology, applied geophysics, environmental geology, and GIS-based modeling** into a unified framework. Unlike traditional practices, EarthLog employs advanced tools such as **Ground Penetrating Radar (GPR)** and **Electrical Resistivity Tomography (ERT)** to generate high-resolution, three-dimensional subsurface imaging. These geophysical datasets are enhanced with **remote sensing** and refined through **proprietary data-processing algorithms** developed by Dr. Dessart. This

data-centric approach produces subsurface models of greater accuracy and reliability than conventional investigations, minimizing project risk while reducing cost and environmental disturbance.

This **technology-driven differentiation** has direct benefits for U.S. infrastructure, industry, and the environment. For developers, engineers, and municipalities, enhanced precision translates into **faster permitting, reduced liability, and improved cost control in billion-dollar projects**. For regulators, it ensures compliance with stringent federal and state environmental standards. For the U.S. at large, it contributes to **infrastructure resilience, aquifer protection, contamination remediation, and climate adaptation goals** matters recognized as nationally significant.

*By combining the agility of a specialized consultancy with advanced methodologies typically reserved for large-scale academic or corporate research, EarthLog Consulting elevates industry practice to a **higher national standard**. In doing so, it supports **strategic U.S. interests in environmental security and economic competitiveness**, demonstrating that the endeavor holds substantial merit ensuring the U.S. economy and environment benefit from innovation-driven consulting that advances both safety and sustainability.*

2.3.2 Integrated Multi-Disciplinary Business Model as a Higher Standard of Practice

EarthLog Consulting has been structured around an **integrated geoscientific framework** that unites hydrogeology, applied geophysics, environmental geology, and Geographic Information Systems (GIS) into a single, seamless consulting approach. This deliberate cross-disciplinary model sets the firm apart from conventional consultants who typically specialize narrowly in single-service lines (e.g., groundwater analysis, soil studies, or environmental permitting, in isolation). By combining these scientific domains into a **data-centric, evidence-based ecosystem**, EarthLog Consulting offers a **higher technical standard of practice** that produces more reliable, actionable, and predictive results.

- **Advantages over Generic Assessments**

Smaller regional competitors often lack the technical infrastructure and expertise to execute multi-disciplinary integrations. Their work products may rely on **limited test wells, 2D soil logs, or standard compliance checklists**, which provide fragmented snapshots of subsurface conditions. In contrast, EarthLog's model **links geophysical imaging with hydrogeological flow modeling, overlays environmental risk data, and integrates findings into Geographic Information System (GIS)-based visualization platforms**. The result is a comprehensive, decision-grade dataset for clients and regulators that transforms isolated data points into predictive, three-dimensional models. This integrative practice reduces uncertainty, accelerates permitting, and prevents costly delays in large-scale projects.

- **Impacts on Safety and Resilience**

The safety of Florida's infrastructure depends on an advanced understanding of complex and high-risk subsurface conditions, including **sinkhole susceptibility, shallow groundwater variability, contaminant migration, and coastal erosion vulnerabilities**. Traditional methods risk overlooking hidden voids, migrating plumes, or seasonal groundwater shifts that can jeopardize highways, residential developments, or utility corridors. By incorporating multiple scientific disciplines and advanced analytics, EarthLog develops **diagnostics that are non-invasive, cost-effective, and significantly more precise**. This methodology directly contributes to **structural safety, environmental compliance, and community resilience**—objectives of clear national importance.

- **Contribution to Sustainability and National Best Practices**

Beyond individual projects, EarthLog's integrated, evidence-based methodology serves as a **model for improving consulting practices nationwide**. In Florida, a densely populated and environmentally sensitive state, this higher consulting standard demonstrates how sustainable development can proceed with reduced ecological footprint and greater regulatory confidence. By minimizing unnecessary drilling, preventing catastrophic failures, and enabling more efficient remediation, the model embodies **sustainability in**

both economic and environmental terms. As federal agencies and municipalities increasingly push for innovation in infrastructure resilience and water management, the demand for such integrative, data-driven approaches will grow, and EarthLog’s framework provides a model that can easily be scalable **in other U.S. regions facing similar challenges.**

In addition, EarthLog will collaborate with municipalities, state agencies, and research institutions to create comprehensive environmental reports and regional condition assessments. These publications will serve both as practical tools and **valuable resources** for academic researchers, fostering knowledge exchange and advancing the science of water management and environmental resilience.

*This business model is more than a competitive differentiator; it directly advances **U.S. national interests** by safeguarding resources, protecting infrastructure, and improving regulatory compliance standards. By pioneering this integrated approach in the Southeast, EarthLog Consulting establishes a practice that not only improves Florida’s resilience but could **redefine consulting benchmarks across the country.***

2.4 Barriers to Entry

The **U.S. environmental and geotechnical consulting industry** presents **significant barriers to entry** that deter undercapitalized or underqualified entrants. These barriers derive from four interrelated dimensions: **specialized technical knowledge, high equipment costs, industry reputation, and regulatory compliance requirements.** EarthLog Consulting’s business model is expressly designed to overcome these structural hurdles, positioning the firm not only to enter but to thrive in this highly demanding sector.

Technical Knowledge Requirements

The market demands **advanced scientific expertise** in hydrogeology, geophysics, and geospatial analytics—disciplines requiring doctoral-level training and years of applied research. Most

regional firms operate with bachelor’s-level personnel focused on routine Phase I site assessments, limiting their ability to perform high-resolution diagnostics of aquifers, karst formations, and subsurface contamination. By contrast, Dr. Dessart **doctoral-level expertise and published research in applied geophysics and hydrology** provide a competitive advantage, directly meeting labor market projections showing **7% growth in environmental scientists¹⁷ and 5% in geoscientists from 2023–2033.¹⁸** This unique skillset positions EarthLog as a **specialized provider** capable of delivering services not available from generic competitors.

Capital and Equipment Costs

Entry is further constrained by the need for **advanced geophysical and monitoring equipment**. Costs for high-resolution instruments are prohibitive: **Ground Penetrating Radar units retail near \$45,000, with \$195 per day rental fees; electromagnetic conductivity meters exceed \$35,000 to purchase or \$140 per day to rent; multiparameter water probes exceed \$2,000 each.** This capital intensity explains why smaller firms often lack the means to execute complex projects independently. EarthLog mitigates this barrier with a **hybrid procurement strategy**, purchasing high-use instruments while renting more specialized equipment as needed—ensuring both financial prudence and access to state-of-the-art technology.

Reputation and Trust

Clients in this sector, ranging from municipal governments to multinational energy companies, entrust consultants with multimillion-dollar development projects. **Reputation and regulatory credibility** thus serve as formidable gates to market entry. Large multinationals such as AECOM and Tetra Tech leverage decades of project experience and extensive client networks, while smaller regional firms often depend on established local relationships. EarthLog’s differentiation rests on **scientifically rigorous methodologies, proprietary data-processing workflows, and doctoral leadership**, which yield **regulator-ready assessments** that can accelerate permitting and reduce compliance risk. This allows EarthLog to build trust rapidly in a market where credibility is essential currency.

¹⁷ <https://www.bls.gov/ooh/life-physical-and-social-science/environmental-scientists-and-specialists.htm>

¹⁸ <https://www.bls.gov/ooh/life-physical-and-social-science/geoscientists.htm>

Regulatory and Licensing Complexity

Florida, EarthLog's launch market, is one of the most **stringent regulatory environments in the U.S.** The **Florida Department of Environmental Protection (FDEP)** requires consultants to master a complex permitting landscape, including **Environmental Resource Permits (ERP), Well Construction Permits (Ch. 62-532 F.A.C.), Consumptive Use Permits, and Underground Injection Control programs**. Failure to demonstrate expertise in these systems results in client project delays and potential regulatory sanctions. With Dr. Dessart's professional qualifications and EarthLog's commitment to **data-driven compliance documentation**, the firm is uniquely prepared to navigate and succeed under this demanding regulatory framework.

EarthLog's Overcoming Strategy

By combining **doctoral-level expertise, a disciplined capital investment model, and a value proposition centered on high-resolution diagnostics and predictive modeling**, EarthLog Consulting transforms industry entry barriers into competitive advantages. While underqualified firms are excluded by knowledge thresholds, EarthLog leverages academic and professional credentials to clear the technical bar; while cost-intensive equipment deters new entrants, EarthLog optimizes procurement through strategic rentals; and while regulatory compliance slows smaller consultancies, EarthLog's **scientifically defensible, regulator-facing reports** accelerate approvals and foster client trust.

In total, EarthLog's structure not only mitigates the industry's high barriers to entry but also demonstrates why the firm is strategically indispensable in a market critical to U.S. environmental security.

2.5 Market Share Concentration

The **U.S. environmental and geotechnical consulting industry** is defined by both its **large national players** and an expansive layer of **small and mid-sized enterprises**. According to IBISWorld, the sector accounts for **\$27.0 billion in annual revenue with nearly 57,000 firms operating nationwide**¹⁹. Despite the vast number of businesses, market concentration is moderate:

¹⁹ <https://www.ibisworld.com/united-states/market-research-reports/environmental-consulting-industry>

the largest companies, **AECOM, Tetra Tech, and Jacobs**, control substantial federal and state contracts, leveraging scale but often delivering **standardized, low-resolution reporting**. Meanwhile, regional firms such as **PPM Consultants in Orlando** focus on compliance filing services and site assessments, but lack the advanced geophysical capacity to deliver predictive, high-fidelity subsurface diagnostics.

The strategic opportunity is magnified by **regional dynamics in Florida**. The Orlando metropolitan area, with a **population of 2.94 million and \$57.2 billion in annual gross sales**, is experiencing infrastructure demand well above the U.S. average.²⁰ Large-scale transportation, stormwater, and real estate development projects require precise subsurface data to satisfy strict **FDEP permitting regimes, including Environmental Resource Permits and Well Construction regulations**. Multinational firms frequently overlook this middle-market demand, while small local firms lack the resources to serve it. EarthLog's **hybrid procurement model (purchasing high-use equipment, renting specialized geophysical tools)** further consolidates its competitive edge, ensuring scalability and cost-efficiency in a high-demand environment.

By targeting this underserved segment, EarthLog is positioned to **capture a defensible share of the regional market niche** within its first years of operation, generating momentum for expansion across the Southeast. Over the long term, EarthLog's focus on **scientifically rigorous, high-resolution diagnostics**—rather than template-based assessments, positions the firm as a **national reference point in specialized geosciences consulting**, directly advancing U.S. priorities in environmental stewardship, groundwater protection, and resilient infrastructure development.

3. The Company's Impact in the U.S. Economy

3.1. Significant Potential to Employ U.S. Workers

Five Year Hiring Plan: High-Skilled Workforce Development

EarthLog Consulting is committed to building a **highly skilled team of professionals** in Orlando, Florida, to deliver advanced environmental and geosciences consulting services. The hiring plan

²⁰ <https://www.bea.gov/data/gdp/gdp-metropolitan-area>

emphasizes roles that combine scientific expertise with technological innovation, ensuring the venture contributes directly to the U.S. knowledge economy and workforce development.

Year 1 – Foundational Team Establishment

- **CEO** - Entrusted with setting the company's long-term vision, safeguarding financial sustainability, and driving innovation, while actively building strategic partnerships that advance U.S. priorities in infrastructure resilience, water security, and environmental protection.
- **Senior Geophysicist** - Responsible for leading applied geophysical studies using advanced methods such as Ground Penetrating Radar (GPR) and Electrical Resistivity (ERT) and overseeing technical accuracy of all field investigations.
- **GIS (Geographic Information System) & Remote Sensing Specialist** - Expert in geospatial data integration, satellite imagery interpretation, and advanced risk modeling; develops GIS-based visualization platforms for regulatory and client decision-making.
- **Hydrogeology Consultant** - Provides expertise in aquifer mapping, groundwater management studies, and contamination plume modeling, essential for Florida's water security demands.
- **Administrative Assistant** - Supports project logistics, compliance documentation, billing, and client communications to ensure smooth operational workflows.

Year 2 – Technical Expansion

- **Environmental Engineer** - Specializes in environmental impact assessments, remediation planning, and regulatory compliance; enhances the firm's capacity to deliver comprehensive EIA reports under NEPA and state frameworks.
- **Geophysics Technician** - Provides field and laboratory support for geophysical surveys, equipment calibration, and preliminary data preprocessing under supervision of the Senior Geophysicist.

Year 3 – Project Leadership and Advanced Processing

- **Project Manager** - Oversees project delivery, budgets, and client relations; ensures cross-disciplinary alignment between geophysical, hydrogeological, and environmental teams.

- **Geoprocessing Specialist** - Focuses on refining proprietary algorithms, integrating large datasets (geophysical, hydrogeological, environmental), and improving data visualization for decision-grade output.

Years 4–5 – Strategic Growth and Specialist Roles

- **Hydrogeologists and Geophysicists** - Additional to meet rising project demands across Florida and the broader Southeastern U.S.
- **Regulatory Liaison / Environmental Compliance Officer** - responsible for interfacing with the Florida Department of Environmental Protection (FDEP) and U.S. EPA on permitting and compliance.
- **Business Development and Client Relations Manager** - to expand the firm’s client base in infrastructure, energy, mining, and real estate sectors, ensuring continued revenue growth and staff expansion.
- **Research & Innovation Lead (Year 5)** - a senior role dedicated to advancing proprietary geophysical data-processing techniques, publishing results, and applying innovations to expand EarthLog’s competitive edge.

National Importance of Hiring Plan

This hiring plan ensures that within five years, EarthLog Consulting will have built a **multidisciplinary team of 12–15 highly skilled STEM (Science, Technology, Engineering and Mathematics) and professional staff** in Orlando. These positions go beyond generic administrative roles and directly contribute to **U.S. strategic priorities** in environmental security, water resource protection, infrastructure resilience, and climate adaptation.

3.2 Payroll and Economic Contribution Analysis

3.2.1 Direct Payroll Investment

Based on U.S. Bureau of Labor Statistics (BLS) salary benchmarks for Florida²¹ and the high-skill nature of these roles, the following annual salaries are projected:

- CEO and Senior Geophysicist – **\$105,000**
- GIS & Remote Sensing Specialist – **\$85,000**
- Hydrogeology Consultant – **\$95,000**
- Environmental Engineer – **\$90,000**
- Project Manager – **\$110,000**
- Geoprocessing Specialist – **\$88,000**
- Geophysics Technician – **\$65,000**
- Environmental Compliance Officer – **\$85,000**
- Research & Innovation Lead – **\$120,000**
- Business Development Manager – **\$95,000**
- Administrative Assistant – **\$48,000**

By Year 5, the total annual payroll is projected to reach **\$910,000**.

Five Year Payroll Growth Timeline

Year	Total	Profile	New hires	Cumulative
1	\$333,000	Geophysicist, GIS, hydrogeologist, admin	4	4
2	\$488,000	Environmental Engineer + Tech	2	6
3	\$686,000	Project Manager + Geoprocessing Specialist	2	8
4	\$800,000	Compliance Officer + Business Dev Manager	2	10
5	\$910,000	Research Lead + additional specialists	3	13

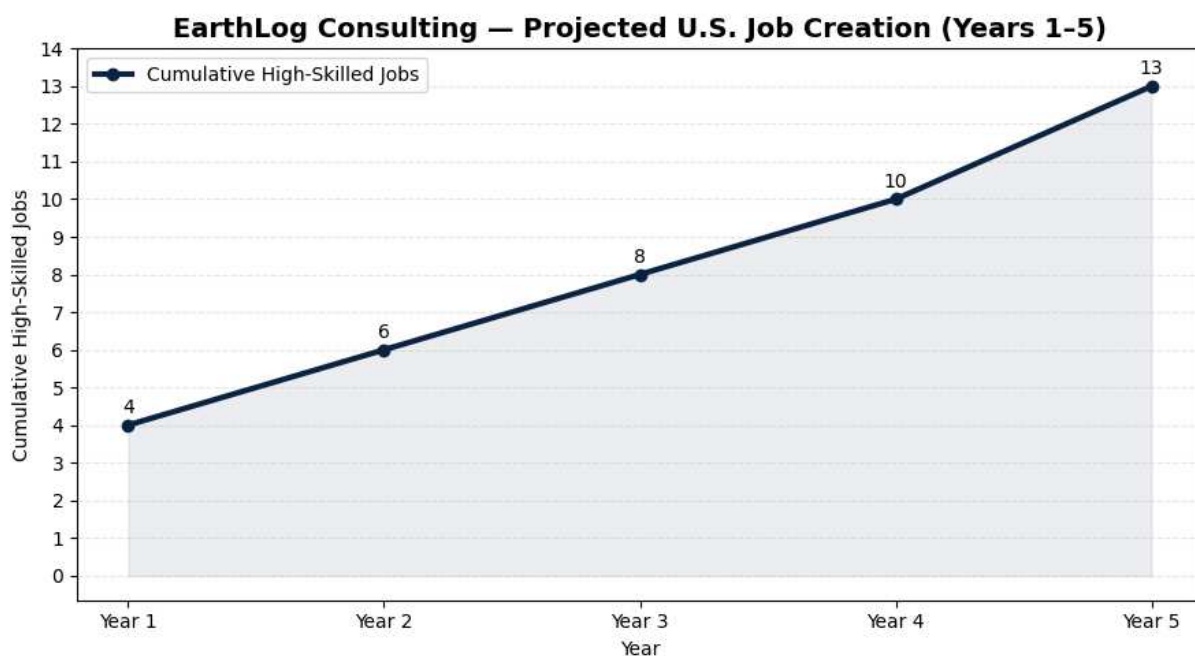
Total direct payroll investment across 5 years: \$3.25 million.

²¹ https://www.bls.gov/oes/current/oes_fl.htm

Indirect and Induced Economic Impact

Economic multipliers in professional services (conservative **1.8x** regional multiplier in Florida) translate payroll spending into broader local economic growth through vendor purchasing, employee consumption, and tax contributions with a total **projected 5-year economic impact: \$5.8 million.**

This includes direct payroll, local goods and services demand (housing, transport, retail), and secondary supply chain effects from contracts and project procurements.



Key Highlights

Year 1: Establishes a core multidisciplinary team of geoscience experts and operational support.

Year 2–3: Expansion introduces engineering, technical, and project leadership capacity.

Year 4: Strategic hires (Compliance, Business Development, Research Lead) embed regulatory expertise, market growth, and innovation leadership.

By Year 5: The firm reaches 13 highly skilled positions, almost all STEM or professional roles, with significant direct payroll and broader economic impact.

3.2.2 Direct Job Creation

EarthLog Consulting's five-year personnel plan calls for the creation of **13 full-time U.S. positions**, each tied to the company's project pipeline and capacity to deliver advanced environmental services. These include technical roles, compliance and safety specialists, project management, and a dedicated business development position. Wages for these roles range from \$48,000 to \$120,000 annually²², resulting in **\$3.25 million in cumulative payroll injections into the U.S. economy** over the first five years. Beyond salary, these positions generate federal, state, and local tax revenues, while strengthening the U.S. scientific workforce in sectors facing nationwide shortages of skilled geoscience and environmental professionals.

3.2.3 Indirect Job Creation

In addition to direct hires, EarthLog's operations will sustain employment across multiple sectors through procurement, partnerships, and project execution. Anticipated indirect job effects include:

- **Equipment & Technology Vendors:** Regular contracting with U.S. suppliers of geophysical and hydrogeological equipment (e.g., Field Environmental Instruments, Sensors & Software) sustains jobs in technology sales, rentals, servicing, and support.
- **Laboratories:** Independent certified labs (e.g., ALS Environmental, Pace Analytical) will perform water quality, soil, and contamination testing, supporting chemists, analysts, and logistics personnel nationwide.
- **Professional Services:** Ongoing reliance on U.S. service providers legal counsel for regulatory compliance, insurance brokers, IT providers, and accounting firms, creates recurrent demand for high-skill U.S. professional services.
- **Construction & Remediation Contractors:** EarthLog's site assessments and geotechnical investigations form the basis for follow-on engineering and construction

²² <https://www.bls.gov/ooh/life-physical-and-social-science/geoscientists.htm>

contracts. Each approved project is expected to mobilize additional teams of contractors, drillers, and remediation specialists who would not otherwise be engaged without EarthLog’s technical inputs.

4.0 Strategy and Implementation

EarthLog Consulting, has developed a **structured strategy and implementation plan** designed to achieve rapid market penetration in Central Florida, establish a reputation for scientific rigor, and scale operations to contribute materially to the **U.S. national interest in environmental security, infrastructure resilience, and sustainable economic growth**. The plan integrates **short-term operational milestones with long-term sectoral positioning**, ensuring both sustainability and scalability.

Strategic Objectives

1. **Market Penetration in Orlando and Central Florida** – Secure initial contracts with **municipal governments, engineering firms, and real estate developers** who require advanced hydrogeological, geophysical, and regulatory-compliant studies. With a **regional economic base of \$57.2 billion in annual gross sales and population growth of 2.7%**²³, Orlando offers concentrated demand for environmental consulting that exceeds the supply of qualified providers.
2. **Technical Leadership through Innovation** – Differentiate services via **proprietary geophysical data-processing workflows**, enabling faster, higher-resolution, and regulator-ready assessments. This innovation addresses structural gaps in the sector, where multinationals prioritize scale over precision and small firms lack advanced capability.
3. **Regulatory Compliance and National Alignment** – Position EarthLog as a trusted partner for **Environmental Resource Permits (ERP), Underground Injection Control (UIC), and Phase I/II Environmental Site Assessments** under the Florida Department of Environmental Protection (FDEP). By delivering scientifically defensible reports,

²³ <https://www.census.gov/quickfacts/orlando-city-florida>

EarthLog accelerates regulatory approvals critical to U.S. infrastructure and economic competitiveness.

4. **Workforce Development and National Contribution** – Scale recruitment of environmental scientists and geoscientists in alignment with **BLS projections (+7% and +5% growth over the decade)**²⁴, creating skilled U.S. jobs in a strategic sector while providing mentorship opportunities through partnerships with Florida’s universities.

Implementation Roadmap

Year 1 (Launch Phase):

- Establish Orlando headquarters, secure FDEP-required business and professional licenses.
- Procure core monitoring instruments (water probes, groundwater sensors) and adopt a hybrid model for geophysical equipment rental, minimizing capital expenditure while accessing state-of-the-art tools.
- Initiate Phase I/II ESA (Environmental Site Assessments) services for mid-sized engineering firms and real estate developers; secure the first municipal contract within 12 months.
- Hire and train the Senior Geophysicist, GIS & Remote Sensing Specialist and Administrative Assistant, to ensure consistent service quality.

Years 2–3 (Market Expansion):

- Expand client base into infrastructure and energy sectors, focusing on stormwater management retrofits, aquifer mapping, and impact studies for transportation projects.
- Implement advanced GIS-based predictive modeling and climate-risk mapping for municipalities addressing sea-level rise, aligning directly with national adaptation priorities.
- Hire and train the Environmental Engineer, Geophysics Technician, Project Manager and Geoprocessing Specialist.

²⁴ <https://www.bls.gov/ooh/life-physical-and-social-science/environmental-scientists-and-specialists.htm>

Years 4–5 (Regional Scale and National Reach):

- Extend services across the U.S. Southeast, leveraging Orlando as a hub to capture demand in Georgia, the Carolinas, and Gulf states with similar karst and coastal risk profiles.
- Position EarthLog as a specialized subcontractor to multinationals (AECOM, Tetra Tech, Jacobs) on federal-scale environmental and infrastructure projects, capturing federally backed contracts while maintaining methodological independence.
- Establish partnerships with universities and research institutes, pursuing grants through the Florida Climate Institute network to integrate cutting-edge resilience science into commercial practice.
- Hiring additional specialized Hydrogeologists and Geophysicists, including Regulatory Liaison / Environmental Compliance Officer, Business Development and Client Relations Manager, and Research & Innovation Lead.

Sustained National Impact

Through this staged strategy, EarthLog Consulting will not only achieve profitability but also generate **direct benefits for U.S. national priorities**:

- Strengthening environmental security by delivering **regulatory-ready hydrogeological insights** for groundwater and aquifer protection.
- Enhancing climate adaptation capacity by **integrating geophysics, hydrology, and GIS predictive modeling** into municipal planning.
- Creating **skilled STEM jobs** in environmental sciences, advancing U.S. competitiveness in fields identified as critical by the Department of Labor.
- Serving as a **trusted technical partner to federal and state agencies**, thereby accelerating infrastructure and energy projects essential to public safety and economic growth.

In sum, EarthLog’s strategy and implementation plan convert barriers to entry into competitive advantages, position Orlando as both a launchpad and a laboratory for national solutions, and ensure that the company’s growth trajectory serves not merely private interests but the **strategic environmental and economic priorities of the United States**.

4.1 SWOT Analysis

Strengths

- **Doctoral-Level Expertise:** EarthLog is led by Dr. Dessart, whose applied geophysics and hydrogeology expertise directly addresses technical needs beyond the capacity of compliance-focused firms. This level of specialization represents a significant barrier to replication in the market.
- **Proprietary Data Workflows:** Unique data-processing methodologies transform raw geophysical datasets into regulator-ready diagnostics, a differentiator absent among most local and regional competitors.
- **Hybrid Equipment Procurement Model:** Strategic balance of purchasing core instruments and renting high-cost geophysical systems reduces capital burden while maintaining state-of-the-art capabilities.
- **Regulatory Competence:** Direct alignment with Florida’s stringent requirements (ERP, Well Construction Permits, UIC) ensures credibility before the Florida Department of Environmental Protection, mitigating compliance risks for clients.
- **Position in High-Growth Region:** Orlando MSA—with nearly **3 million residents and 2.7% annual growth**—is one of the nation’s fastest-growing metro areas, offering steady demand across residential, commercial, and infrastructure projects.²⁵

Weaknesses

- **New Market Entrant:** EarthLog lacks the legacy reputation and brand recognition held by large multinationals (AECOM, Tetra Tech, Jacobs), requiring deliberate investment in relationship-building.
- **Capital Limitations:** Despite using a hybrid procurement strategy, the firm must still navigate high upfront costs for essential monitoring equipment, field vehicles, and specialized software.
- **Initial Team Size:** Operating with a lean team at launch may reduce scalability speed for multi-site or large-scale federal projects.

²⁵ <https://www.census.gov/quickfacts/orlando-city-florida>

- **Limited Federal Prime Experience:** As a new company, EarthLog must initially focus on subcontracting roles or regional contracts before competing directly with incumbents for national-level bids.

Opportunities

- **Market Growth:** The U.S. environmental consulting industry is valued at **\$27B**, growing at **2.7% annually**, reflecting sustained demand driven by climate adaptation, regulatory tightening, and infrastructure investment.²⁶
- **Demographic and Infrastructure Expansion:** Orlando's gross sales base of **\$57.2B** and rapid urban growth amplify demand for stormwater, groundwater, and real estate assessments, creating a fertile environment for EarthLog's services.²⁷
- **Federal Investment and Resilience Projects:** Bipartisan Infrastructure Law funding and FEMA (Federal Emergency Management Agency) resilience initiatives are increasing demand for specialized environmental studies nationwide.
- **Workforce Expansion:** With **7% projected growth for environmental scientists and 5% for geoscientists**, EarthLog can benefit from a deepening professional labor pool while also creating jobs supporting U.S. competitiveness.²⁸
- **Strategic Partnerships:** Opportunities exist to subcontract with multinationals on federally funded projects while carving a specialized niche in advanced geophysical diagnostics.

Threats

- **Competitive Pressure:** Established players (AECOM, Jacobs, Tetra Tech) dominate long-term federal contracts, leveraging legacy advantage and entrenched client relationships.
- **Economic Volatility:** Construction and development markets are sensitive to interest rates and capital availability. A downturn could impact demand for environmental consulting services tied to real estate development.

²⁶ <https://www.ibisworld.com/united-states/market-research-reports/environmental-consulting-industry>

²⁷ <https://www.bea.gov/data/gdp/gdp-metropolitan-area>

²⁸ <https://www.bls.gov/ooh/life-physical-and-social-science/environmental-scientists-and-specialists.htm>

- **Regulatory Complexity:** While regulatory rigor (ERP, ESA, UIC) generates demand, ongoing revisions or shifting agency priorities could alter market conditions.
- **Technology Obsolescence:** Rapid innovation in geophysical and GIS tools requires continual reinvestment; firms that lag in adoption risk losing competitive edge.
- **Talent Competition:** As demand for geoscientists rises nationally, EarthLog must compete with larger firms offering higher initial salary packages.

4.2 Sales Strategy

EarthLog Consulting sales strategy is founded on three mutually reinforcing pillars: **(1) establishing credibility through scientific rigor, (2) targeting high-value public and private sector clients, and (3) building a robust professional referral network.** This framework ensures that the company develops a sustainable client pipeline grounded in reputation, regulatory trust, and peer-to-peer professional validation.

Establishing Credibility in a New Market

As a new entrant in Orlando, EarthLog must differentiate itself from existing firms not through volume but through **methodological precision, regulatory fluency, and innovation.** This will be achieved by:

- Producing **peer-reviewed quality deliverables** that are regulator-ready for agencies like the **Florida Department of Environmental Protection (FDEP)** and the regional **Water Management Districts.**
- Publishing technical briefs demonstrating the effectiveness of EarthLog's **proprietary geophysical data-processing methods**, thereby positioning the firm as a scientific authority.
- Leveraging Dr. Dessart's reputation as a **PhD geoscientist, published author, and university instructor**, which provides immediate legitimacy in a competitive landscape where consultants are typically bachelor's-level trained.

Targeting High-Value Corporate and Government Clients

The primary sales targets are **civil engineering corporations, environmental law offices, real estate developers, and government agencies** engaged in large-scale infrastructure, energy, and water resource projects. Specific outreach efforts will include:

- **Civil Engineering Firms** (e.g., Orlando-based firms listed in competitive benchmarking) — offering specialized hydrogeological and subsurface diagnostics to complement their design and construction services.
- **Environmental Law Offices** — providing technical support in regulatory cases, compliance disputes, and permitting submissions where high-resolution diagnostics strengthen legal defensibility.
- **Government Agencies and Special Districts** — such as the **South Florida Water Management District (SFWMD)** and **St. Johns River Water Management District**, where compliance with ERP and UIC permitting is critical to project approvals.
- **Municipalities and Utilities** — emphasizing aquifer protection, flood mitigation, and climate resilience mapping, particularly in Orlando’s rapidly growing corridor (**2.7% annual population growth and \$57.2 billion gross sales**).²⁹

Direct sales efforts will rely on customized proposals demonstrating how EarthLog’s methods reduce permitting delays, lower legal risk, and increase project certainty — all pain points for sophisticated institutional clients.

Building Direct Referral Networks

EarthLog will proactively cultivate a **professional referral system** with firms and organizations that influence client decision-making. This plan includes:

- Forming reciprocal partnerships with **civil engineering firms** whose designs depend on reliable subsurface data.
- Aligning with **environmental law firms** that regularly advise developers and investors on compliance mandates.

²⁹ <https://www.census.gov/quickfacts/fact/table/orlandokissimmeesanfordfloridametropolitanstatisticalarea>

- Establishing credibility with **state and local regulatory representatives** (e.g., FDEP offices, EPA Region 4, Orlando city government) through consultative interactions, training sessions, and collaborative workshops.
- Joining professional associations such as the **Florida Association of Environmental Professionals (FAEP)** for network-building and early project lead access.

Conference and Professional Visibility Strategy

To further solidify credibility and sales traction, EarthLog will invest in **thought leadership through conferences and professional forums**. This includes:

- Presenting technical findings at **U.S. conferences organized by the American Institute of Professional Geologists (AIPG) and the National Ground Water Association (NGWA)**.
- Engaging in regional events hosted by the **Florida Climate Institute (FCI)**, highlighting EarthLog's contribution to climate resilience and aquifer protection.
- Publishing white papers and case studies in **Environmental Science & Technology, Journal of Hydrology**, and industry-facing outlets, reinforcing the firm's evidence-based distinction.

By combining **direct outreach, referral network development, and technical visibility**, EarthLog's sales strategy ensures access to a steady flow of high-value projects. Anchored in scientific credibility and regulatory trust, this approach positions the firm to build strong institutional relationships, secure a loyal client base, and significantly contribute to the **U.S. national interest in sustainable infrastructure and environmental security**.

4.3 Sales Forecast

The five-year sales forecast for **EarthLog Consulting** is grounded in conservative, evidence-based assumptions that reflect a disciplined ramp-up in project wins, clear service-line pricing, and steady demand in the Orlando market. Florida peers typically advertise blended bill rates between **\$75–\$300/hour**; given EarthLog's doctoral-level expertise and integrated geophysics–GIS methods, realized billing falls in the **upper-middle tier (\$150–\$225/hour)**. Reference prices are

indexed by roughly **3% per year on average** to reflect inflation and mix upgrades; realized fees in any given year or contract may vary with scope and competitive dynamics.

Project mix & reference pricing (ranges)

- **Phase I/II Environmental Site Assessments (ESA):** typically **\$7,500–\$12,000** per project.
- **Geophysical Subsurface Surveys (GPR, resistivity, EM):** **\$15,000–\$30,000** per project.
- **Hydrogeological Studies (MODFLOW/GIS):** **\$25,000–\$40,000** per project.
- **Environmental Impact Assessments (EIA):** **\$50,000–\$80,000** per project, **introduced from Year 3** as credentials and teaming mature.

Client acquisition trajectory

Years **1–2** emphasize small and mid-scale private contracts (ESA, Geophysics, Hydro) while building relationships and teaming. From **Year 3**, the firm adds larger municipal/infrastructure scopes, including **EIA**, as past performance and references accumulate.

Growth path (reconciles to tables)

Revenue growth follows a front-loaded ramp, then moderates as scale and mix sustain expansion: **+47.8% (Y2 vs. Y1), +44.4% (Y3 vs. Y2), +23.9% (Y4 vs. Y3), +22.5% (Y5 vs. Y4)**, consistent with Central Florida’s expansion dynamics and our hiring roadmap.

Margin and costing policy

Gross margin targets are **91.3% in Year 1**, increasing slightly each year to **91.7% by Year 5**. **Direct Cost of Sales** captures only third-party laboratories, specialty subcontractors, and essential travel directly attributable to projects. All personnel costs remain in **operating expenses**; no “Other Cost of Sales” line is used. The profile supports a **light positive net profit in Year 1** with a gradual, defensible increase over the plan horizon as utilization, service mix, and pricing strengthen.

Sales Forecast Table

Year	ESA Units	Geophys Units	Hydro Units	EIA Units	Total Units	Sales – ESA	Sales – Geophys	Sales – Hydro	Sales – EIA	Total Sales
Year 1	12	9	7	0	28	\$114,000.00	\$180,000.00	\$192,500.00	\$0.00	\$486,500.00
Year 2	14	20	6	0	40	\$136,990.00	\$412,000.00	\$169,950.00	\$0.00	\$718,940.00
Year 3	13	12	18	2	45	\$131,021.15	\$254,616.00	\$525,145.50	\$127,308.00	\$1,038,090.65
Year 4	16	12	22	3	53	\$166,094.50	\$262,254.48	\$661,099.84	\$196,690.86	\$1,286,139.68
Year 5	15	16	21	6	58	\$160,385.01	\$360,162.82	\$649,981.34	\$405,183.17	\$1,575,712.33

5.0 Marketing Plan

EarthLog Consulting, will deploy a **strategic digital presence** designed to showcase its scientific expertise, attract qualified leads, and position itself as a niche leader in the U.S. environmental consulting market. The digital strategy focuses on three pillars: **(1) authoritative blog content and case studies, (2) SEO optimization at local and national levels, and (3) a targeted professional LinkedIn campaign.**

5.1 Blog Content & Case Studies

The EarthLog website will feature a **technical blog** centered on high-value articles and peer-informed case studies that highlight the firm’s **scientific rigor and proprietary methodologies**. Planned topics include:

- **“Using GPR for Karst and Sinkhole Detection in Florida”** – Demonstrating advanced geophysical imaging in Orlando’s karst terrain, a pressing risk factor for developers and municipalities.

- **“Advanced Aquifer Mapping for Sustainable Water Use”** – Showcasing hydrogeological modeling to address water scarcity and saltwater intrusion in Florida’s aquifers.
- **“Environmental Impact Assessments for Resilient Infrastructure”** – Explaining how EarthLog’s methodology supports compliance with **FDEP’s ERP and federal NEPA requirements**.
- **Case Studies:** Documenting real project outcomes (e.g., aquifer vulnerability maps, contamination plume delineation) with visual outputs (GIS maps, survey profiles).

This **evidence-driven content** will serve dual purposes: establishing EarthLog as an **authoritative voice** in applied geosciences and improving search engine visibility for high-intent queries.

5.2 Local & National SEO Strategy

EarthLog’s SEO strategy will use both **local targeting** (Florida and Orlando-specific terms) and **national positioning** (for broader geoscience consulting demand).

- **Local SEO:** Optimize to rank for regionally-relevant keywords such as *“geophysical surveys Florida”*, *“environmental impact assessment Orlando”*, *“sinkhole detection Orlando geophysics”*. This includes Google My Business optimization, localized meta descriptions, and backlink building with Florida universities and professional associations.
- **National SEO:** Develop authority pages optimized for searches such as *“hydrogeology consultant USA”*, *“advanced groundwater modeling consulting”*, and *“environmental geophysics services”*. National rankings will be supported by the publication of downloadable white papers, citations in trade journals, and backlinks from national associations such as **AIPG (American Institute of Professional Geologists)** and the **NGWA (National Ground Water Association)**.

5.3 Professional LinkedIn Strategy

LinkedIn will serve as EarthLog’s primary **professional networking and digital referral platform**. Dr. Dessart and key EarthLog staff will use LinkedIn to engage directly with **senior**

engineers, project managers in construction and mining companies, urban planners, and environmental regulators. Strategy components include:

- **Profile Optimization:** Elevating Dr. Dessart's profile with emphasis on his doctoral background, published research, university teaching, and proprietary innovations. This positions him as an authority figure within the LinkedIn professional ecosystem.
- **Targeted Campaigns:** Using LinkedIn's advanced search and InMail capabilities to connect with decision-makers at engineering firms, municipalities, and large developers in Florida and across the Southeast.

Strategic Objective

This integrated digital strategy ensures that EarthLog is **discoverable where high-value clients search, credible through peer-reviewed content, and visible to decision-makers through professional platforms**. By combining SEO authority with direct LinkedIn outreach, EarthLog will systematically cultivate its client pipeline and establish itself as an indispensable resource for both regional and national market stakeholders.

5.4 Scientific Publications & Knowledge Leadership

In addition to digital and networking strategies, EarthLog Consulting will invest in scientific visibility through peer-reviewed publications and academic contributions. Dr. Dessart has authored and co-authored multiple articles and technical reports in applied geophysics, hydrogeology, and environmental studies, which have been published in recognized scientific outlets. These works not only demonstrate technical rigor but also position EarthLog as an industry thought leader, providing clients and regulators with the confidence that services are grounded in internationally validated knowledge.

The marketing strategy will leverage this scientific track record by:

- Highlighting existing peer-reviewed publications on the company website and proposal materials, reinforcing EarthLog's academic and applied expertise.

- Preparing new manuscripts for submission to journals such as *Journal of Hydrology*, *Environmental Earth Sciences*, and *Applied Geophysics*, based on project results in the U.S. market.
- Presenting findings at professional conferences, thereby increasing visibility with federal agencies (e.g., USGS, EPA, USDA) and expanding networking opportunities with industry stakeholders.

This component of the marketing plan transforms EarthLog’s technical excellence into brand authority, ensuring that prospective clients associate the firm with both innovation and credibility. Scientific dissemination activities also strengthen U.S. knowledge capital in critical domains, aligning EarthLog’s growth with the broader national interest

6. Roles and responsibilities

6.1 CEO

As the Chief Executive Officer and Principal Senior Geophysicist, Dr. Dessart is the singular driving force behind EarthLog Consulting’s strategic direction, technical innovation, and operational integrity. In his capacity as CEO, he **is responsible for charting the company’s growth trajectory, ensuring financial viability, and cultivating strategic partnerships that align with national infrastructure and environmental priorities.** Concurrently, as Principal Geophysicist, provides direct technical oversight for all advanced hydrogeological and geophysical projects, guaranteeing the scientific rigor and accuracy of every deliverable. His direct involvement in quality control ensures that all data acquisition, modeling, and reporting meet the highest industry standards and regulatory requirements, thereby mitigating project risks and accelerating critical approvals for clients. Furthermore, Dr. Dessart spearheads business development, leveraging his unique expertise and extensive professional network to secure projects that directly address significant U.S. needs in water resource management, climate resilience, and sustainable development. This dual leadership ensures that EarthLog Consulting remains at the forefront of applied geoscience, translating cutting-edge scientific methods into tangible benefits for the nation.

Highlights:

- **Strategic Direction:** His role in guiding the company's future.
- **Technical Oversight & Quality Control:** His direct involvement in scientific and operational excellence.
- **Business Development:** His active role in securing projects that serve national interests.

As indispensable asset whose leadership is critical for the company's success and its ability to deliver on its national importance.

6.2 Senior Geophysicist

Serves as the technical authority for all advanced subsurface investigation methodologies, ensuring the highest standards of geophysical data acquisition, processing, and interpretation.

Main responsibilities:

- Designs comprehensive survey protocols using:
 - Ground-penetrating radar (GPR)
 - Electromagnetic induction
 - Electrical resistivity
 - Seismic refraction
- Characterizes complex geological conditions through applied geophysical techniques.
- Oversees quality control of all geophysical datasets.
- Validates interpretations against geological and hydrogeological models.
- Provides expert testimony for regulatory proceedings.
- Mentors junior technical staff.
- Maintains proficiency with cutting-edge geophysical technologies.
- Ensures survey methodologies comply with industry best practices and regulatory standards.
- Contributes directly to the accuracy and defensibility of environmental assessments critical to U.S. infrastructure and remediation projects.

6.3 GIS & Remote Sensing Specialist

Transforms complex environmental and geophysical datasets into comprehensive spatial analyses and decision-grade visualizations that support regulatory compliance and project planning.

Main responsibilities:

- Manages enterprise GIS databases and develops 3D subsurface models.
- Integrates multi-source data into unified analytical platforms, including:
 - Satellite imagery
 - LiDAR
 - Geophysical surveys
 - Hydrogeological monitoring
- Creates interactive mapping applications.
- Conducts spatial risk assessments.
- Produces regulatory-compliant deliverables for federal and state agencies.
- Maintains GIS infrastructure while ensuring data integrity and security.
- Develops automated workflows to enhance project efficiency.
- Converts technical data into accessible visual formats for clients and regulators.
- Enables informed decision-making on environmental protection, infrastructure development, and resource management initiatives of national importance

6.4 Hydrogeology Consultant

Provides specialized expertise in groundwater flow modeling, aquifer characterization, and water resource sustainability assessments essential for environmental compliance and infrastructure resilience.

Main responsibilities:

- Provides specialized expertise in groundwater flow modeling, aquifer characterization, and water resource sustainability assessments for environmental compliance and infrastructure resilience.
- Conducts comprehensive hydrogeological investigations, including:
 - Aquifer testing

- Groundwater monitoring network design
- Contaminant fate and transport modeling
- Develops water supply sustainability plans.
- Assesses groundwater surface water interactions.
- Evaluates the impacts of proposed developments on regional water resources.
- Interfaces with water management districts and regulatory bodies.
- Prepares consumptive use permit applications.
- Ensures compliance with federal and state water resource regulations.
- Supports national priorities in water security, climate adaptation, and sustainable development.
- Provides the scientific foundation for responsible water resource management and environmental protection decisions.

6.5 Environmental Engineer

Integrates engineering principles with environmental science to design and implement solutions for contamination remediation, pollution prevention, and environmental compliance.

Main responsibilities:

- Integrates engineering principles with environmental science to design and implement solutions for contamination remediation, pollution prevention, and environmental compliance.
- Develops remediation system designs and conducts feasibility studies for cleanup technologies.
- Oversees the implementation of environmental mitigation measures.
- Prepares detailed technical reports for regulatory agencies.
- Ensures compliance with EPA and state environmental regulations.
- Coordinates with multidisciplinary teams to deliver comprehensive environmental solutions.
- Evaluates emerging remediation technologies.
- Conducts cost-benefit analyses for environmental improvements.

- Provides technical support for environmental permitting processes.
- Advances U.S. environmental protection goals by:
 - Supporting infrastructure development that meets stringent environmental standards
 - Ensuring remediation projects effectively protect public health and environmental resources

6.6 Project Manager

Ensures seamless execution of complex environmental consulting projects from initiation through regulatory approval, serving as the primary interface between technical teams, clients, and regulatory agencies.

Main responsibilities:

- Develops comprehensive project schedules.
- Manages budgets and resource allocation.
- Coordinates multidisciplinary teams to deliver projects on time and within scope.
- Maintains ongoing communication with federal and state regulatory agencies.
- Ensures compliance with permitting requirements.
- Manages stakeholder expectations throughout the project lifecycle.
- Oversees quality assurance protocols.
- Identifies and manages project risks.
- Ensures all deliverables meet regulatory standards and client specifications.
- Streamlines project execution and regulatory coordination.
- Accelerates the delivery of environmental assessments and infrastructure projects supporting:
 - National economic competitiveness
 - Environmental protection objectives

6.7 Geoprocessing Specialist

Develops and maintains automated workflows for processing, analyzing, and integrating large-scale geospatial and environmental datasets critical to advanced site characterization.

Main responsibilities:

- Creates custom geoprocessing tools, manages database systems, and develops algorithms to improve efficiency and accuracy of spatial analyses.
- Implements quality control procedures for data processing.
- Ensures data standardization across projects.
- Maintains version control for analytical workflows.
- Provides technical support for GIS applications.
- Troubleshoots data processing issues.
- Develops documentation for analytical procedures.
- Enables EarthLog to efficiently manage complex, data-intensive projects.
- Supports rapid delivery of environmental assessments and infrastructure analyses.
- Informs critical decisions about national resource management and environmental protection.

6.8 Geophysics Technician

Provides essential field support for advanced geophysical surveys, ensuring accurate data collection and maintaining the sophisticated equipment necessary for subsurface investigations.

Main responsibilities:

- Sets up, calibrates, and operates equipment in the field.
- Conducts quality control checks during data acquisition.
- Maintains detailed field documentation.
- Assists with survey planning and coordinates field logistics.
- Ensures compliance with health and safety protocols during field operations.
- Performs routine equipment maintenance.
- Manages field equipment inventory.

- Provides preliminary data processing support.
- Ensures high-quality geophysical data is collected efficiently and safely.
- Supports accurate subsurface characterization for environmental assessments, infrastructure development, and remediation projects of national significance.

6.9 Environmental Compliance Officer

Ensures that all EarthLog operations and client projects meet or exceed federal, state, and local environmental regulations, serving as the primary liaison with regulatory agencies and maintaining the company's compliance integrity.

Main responsibilities:

- Monitors regulatory changes and updates compliance procedures.
- Conducts internal audits to ensure adherence to environmental standards.
- Prepares and submits regulatory reports.
- Manages environmental permits and certifications.
- Coordinates with legal counsel on compliance matters.
- Develops and delivers compliance training programs.
- Investigates potential compliance issues.
- Implements corrective actions when necessary.

The Environmental Compliance Officer's work is essential for maintaining EarthLog's ability to support federally funded projects and regulatory initiatives, ensuring that the company's contributions to national environmental protection and infrastructure development meet the highest standards of regulatory compliance

6.10 Research & Innovation Lead

Drives the development and implementation of cutting-edge technologies and methodologies that advance EarthLog's technical capabilities and maintain its competitive advantage in environmental consulting.

Main responsibilities:

- Identifies emerging technologies.
- Conducts feasibility studies for new analytical methods.
- Develops proprietary approaches to complex environmental challenges.
- Manages research partnerships with universities and government agencies.
- Pursues grant funding opportunities.
- Oversees integration of innovative technologies into operational workflows.
- Prepares technical publications.
- Presents research findings at professional conferences.
- Maintains EarthLog's reputation as a technology leader in applied geosciences.
- Ensures EarthLog remains at the forefront of environmental consulting technology.
- Enables the company to address increasingly complex environmental challenges.
- Supports national priorities in climate adaptation, infrastructure resilience, and environmental protection.

6.11 Business Development Manager

Expands EarthLog's client base and revenue streams by identifying and securing strategic contracts that align with national infrastructure, environmental protection, and climate resilience priorities.

Main responsibilities:

- Develops relationships with federal agencies, state governments, and private sector clients.
- Prepares competitive proposals for major contracts.
- Identifies emerging market opportunities.
- Conducts market analysis.

- Develops strategic partnerships.
- Represents EarthLog at industry conferences and networking events.
- Manages the proposal development process.
- Coordinates with technical teams to develop competitive pricing strategies.
- Maintains a pipeline of potential projects.
- Increases project volume and expands employment opportunities
- Enhances contributions to national environmental and infrastructure objectives.
- Demonstrates EarthLog's growing economic impact and strategic value to U.S. interests.

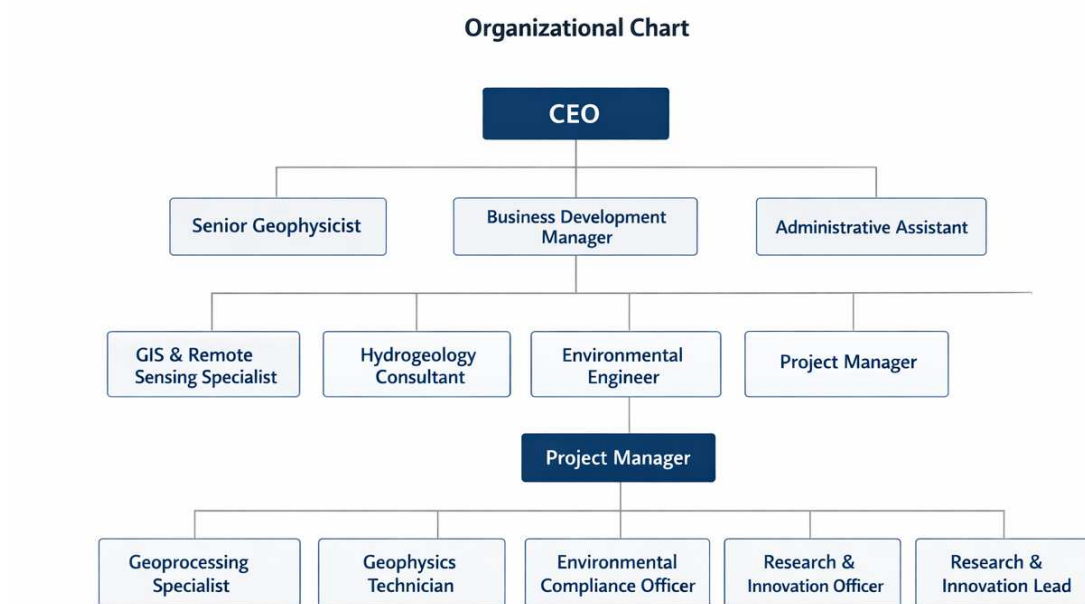
6.12 Administrative Assistant

Provides essential operational support that enables EarthLog's technical and management teams to focus on delivering high-quality environmental consulting services to clients and regulatory agencies.

Main responsibilities:

- Manages office operations.
- Coordinates schedules and meetings.
- Maintains project documentation and filing systems.
- Handles client communications.
- Processes invoices and contracts.
- Provides logistical support for field operations and project coordination.
- Manages office supplies and equipment.
- Coordinates travel arrangements.
- Provides general administrative support to all departments.
- Supports the company's operational efficiency.

6.13 Organizational Chart – Year 5



7. Financials

EarthLog Consulting, enters the U.S. market with a well-capitalized and strategically structured financial foundation that underscores both stability and growth potential. The company has been launched with an initial capitalization of **\$90,000 in personal investment**, ensuring debt-free operations at inception and demonstrating the petitioner’s commitment to advancing this enterprise as a long-term U.S. endeavor.

A detailed break-even analysis confirms a **clear and attainable path to profitability within the firm’s firsts years of operations**, validating the business model’s efficiency and the firm’s ability to generate sustainable revenues from client engagements. Unlike speculative ventures, EarthLog’s projections are rooted in **conservative, industry-standard assumptions** on billable rates, utilization, and operating costs, ensuring that revenue growth forecasts are both realistic and attainable.

The company anticipates **robust revenue expansion over its initial three years**, supported by increasing demand for advanced geosciences consulting across Central Florida’s high-growth development corridor. Financial projections underscore not only EarthLog’s profitability

trajectory but also its capacity to deliver **positive economic contributions through job creation, supplier contracts, and downstream market effects**. Collectively, these financial indicators demonstrate that EarthLog Consulting is well-positioned to operate as a profitable and enduring enterprise that strengthens the U.S. economy while advancing national priorities in sustainable land use and resource management.

7.1 Startup Funding

EarthLog Consulting will be launched with an initial capitalization of **\$90,000** from the founder's personal savings, a direct demonstration of commitment and readiness to assume financial and professional risk in advancing this U.S.-based enterprise. This sum is sufficient to not only cover launch costs but also to strategically position the company for immediate contract execution, steady operations, and long-term growth. The allocations are designed to secure the technical, operational, and market foundations required for a professional geosciences consulting firm.

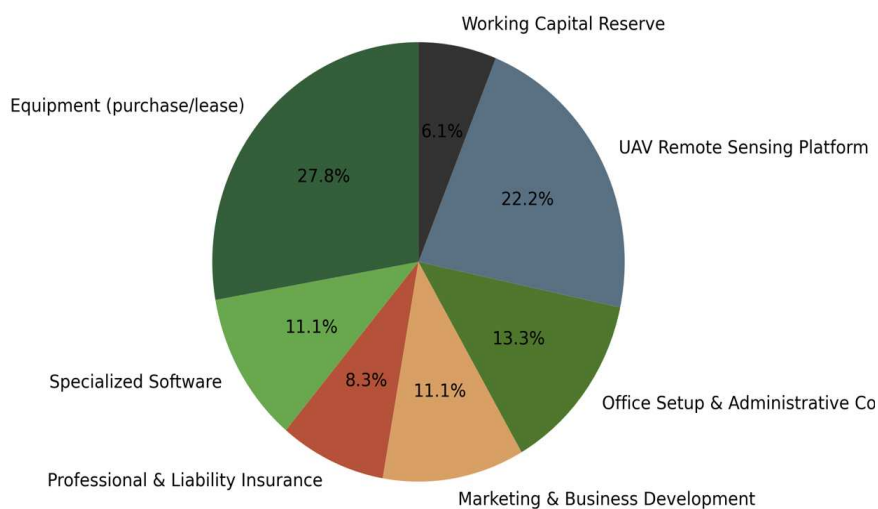
7.1.1. Funding Allocation Table

Category	Allocation	Purpose
Geophysical Equipment (purchase/lease)	\$25,000	Acquisition of ground-penetrating radar, resistivity meters, and monitoring tools necessary for field assessments.
Specialized Software	\$10,000	Licensing for industry-standard platforms (Oasis Montaj, ArcGIS, AutoCAD extensions) to ensure regulatory-grade deliverables.
Professional & Liability Insurance	\$7,500	Comprehensive coverage to mitigate liability and meet contractual compliance requirements.
Marketing & Business Development	\$10,000	Branding, website development, client outreach campaigns, and market penetration in the Orlando region.

Office Setup & Administrative Costs	\$12,000	Establishment of Orlando headquarters, including leasing, furnishings, IT infrastructure, and compliance filings.
UAV Remote Sensing Platform	\$20,000	Acquisition of an RTK-enabled enterprise UAV, Part 107 training, insurance, and photogrammetry software to integrate high-resolution remote sensing into geophysics/hydrogeology and EIA deliverables, accelerating project turnaround and marketing assets.
Working Capital Reserve	\$5,500	Payroll, travel, subcontracting, and short-term liquidity needs to ensure seamless initial operations.

Each allocation serves a strategic role: geophysical equipment guarantees field-readiness and technical credibility; specialized software empowers cutting-edge data integration and mapping; liability insurance safeguards compliance and client confidence; marketing initiatives secure early contracts; office setup creates a professional base of operations; and the working capital reserve safeguards liquidity. Collectively, this disciplined approach to funding ensures that EarthLog Consulting not only launches in a compliant, fully operational state, but also possesses the financial resilience to succeed and grow in the United States.

Startup Funding Allocation (\$90,000)



7.2 Break-even Analysis

Introduction

The break-even analysis identifies the level of revenue that EarthLog Consulting, must generate in order to cover all of its expenses. In other words, the analysis calculates the exact threshold where incoming project revenues offset both fixed and variable costs, ensuring that from that point onward the company begins to generate a profit. This framework presents a transparent, data-driven way to demonstrate financial viability to all stakeholders, including U.S. regulators and adjudicators.

Methodology

The analysis separates EarthLog's expenses into three core elements: fixed costs, variable costs, and contribution margin.

- **Fixed Costs** are expenses that remain constant regardless of the number of projects completed. For EarthLog, these include professional software licenses (Oasis Montaj, ArcGIS), liability insurance coverage, office rent and utilities at the Orlando headquarters, and base administrative salaries. These items constitute the infrastructure that enables service delivery and are recognized as operating expenses rather than cost of sales. In **Year 1**, total operating expenses translate into **estimated monthly fixed costs of \$35,925**; in **Year 2**, as staffing and facilities scale, the figure rises to **\$50,366.67**.
- **Variable Costs** fluctuate with the number and scope of assignments. Typical examples include project-specific field travel, subcontracted specialists and laboratories, and consumables (e.g., soil probes, groundwater sampling supplies). These expenses are booked as **Direct Cost of Sales** and move proportionally with revenue. With an average bill rate of **\$200/hour**, the variable cost per billable hour is **\$17.40 in Year 1** and **\$17.20 in Year 2**.
- **Contribution Margin** is the portion of revenue remaining after variable costs are deducted, measured here per billable consulting hour. At the stated bill rate, EarthLog's

contribution equals **\$182.60/hour in Year 1** and **\$182.80/hour in Year 2**, corresponding to **contribution margins of 91.3% and 91.4%**, respectively. This high margin reflects EarthLog’s expert-driven delivery model in which personnel costs are carried in operating expenses (payroll) rather than in cost of sales.

Calculation & Conclusion (Years 1–2)

- Monthly Revenue Break-even
 Year 1: $\$35,925 \div 0.913 = \$39,348.30$
 Year 2: $\$50,366.67 \div 0.914 = \$55,105.76$
- Monthly Units Break-even (billable hours @ \$200/h)
 Year 1: $\$39,348.30 \div \$200 = 196.74$ hours
 Year 2: $\$55,105.76 \div \$200 = 275.53$ hours

Under these assumptions, the plan’s Year 1 and Year 2 sales targets exceed the required thresholds, supporting a **light positive net profit in Year 1** and a **larger margin in Year 2**, while maintaining conservative costing and documentation aligned with regulatory-grade deliverables.

7.2.1 Break-even Analysis Chart

Break-even Analysis		
Metric	Year 1	Year 2
Monthly Units Break-even (billable hours)	196.74	275.53
Monthly Revenue Break-even	\$39,348.30	\$55,105.76
Average Bill Rate (per hour)	\$200.00	\$200.00
Average Variable Cost per Billable Hour	\$17.40	\$17.20
Contribution per Unit	\$182.60	\$182.80
Contribution Margin (%)	91.30%	91.40%
Estimated Monthly Fixed Costs	\$35,925.00	\$50,366.67

7.3 Profit and Loss Assumptions

EarthLog Consulting has structured its financial model to enable sustainable, long-term growth while preserving a high technical standard and operating discipline. Led by Dr. Dessart, the plan prioritizes skilled staffing, partner development, and a staged expansion of delivery capacity across Phase I/II ESAs, applied geophysics, hydrogeology (MODFLOW/GIS), and beginning in Year 3- Environmental Impact Assessments (EIA) for municipal and infrastructure clients in Greater Orlando.

Revenue Growth and Profitability

EarthLog adopts conservative, market-aligned pricing with a modest ~3% annual price step and a lean direct-cost policy. Gross margin starts at 91.3% in Year 1 and increases by thousandths to 91.7% by Year 5, reflecting disciplined pass-through of labs/subcontractors and an expertise-driven model (personnel in OpEx, not in COGS).

Total Sales: \$486,500 (Y1), \$718,940 (Y2), \$1,038,090.65 (Y3), \$1,286,139.68 (Y4), \$1,575,712.33 (Y5).

Direct Cost of Sales: \$42,739.50, \$61,166.04, \$88,238.19, \$108,031.73, \$130,780.92 (no "Other COS")

Gross Margin (\$): \$443,760.50, \$657,773.96, \$949,852.46, \$1,178,107.95, \$1,444,931.41.

Year 1 concentrates on ESAs, geophysics, and selective hydro; by Year 3, EIAs enter the mix as references, teaming, and municipal relationships mature-supporting scale while preserving margin quality.

Operating Expenses and Workforce Investment

Operating expenses scale with capacity while remaining disciplined. The staffing roadmap builds a durable core and adds capability where it most improves delivery and compliance.

Payroll (total): \$333,000 (Y1), \$488,000 (Y2), \$686,000 (Y3), \$800,000 (Y4), \$910,000 (Y5).

Payroll taxes (10%): \$33,300, \$48,800, \$68,600, \$80,000, \$91,000

Other OpEx (rent, insurance, marketing, utilities, training, accountant, depreciation, remodeling): \$64,800 (Y1), \$68,600 (Y2), \$90,100 (Y3), \$100,600 (Y4), \$115,100 (Y5)

Total Operating Expenses: \$431,100, \$604,400, \$844,700, \$980,600, \$1,116,100.

Hiring cadence: Y1 (Geophysicist, GIS, Hydrogeologist, Admin) lays the foundation; Y2 adds an Environmental Engineer and Geophysics Technician; Y3 adds a Project Manager and Geoprocessing Specialist; Y4 brings a Compliance Officer and Business Development Manager; Y5 adds a Research Lead and additional specialists.

Net Profit and Tax Contributions

Applying a 24% effective tax rate to positive EBIT, profitability builds steadily with scale.

EBIT: \$12,660.50 (Y1), \$53,373.96 (Y2), \$105,152.46 (Y3), \$197,507.95 (Y4), \$328,831.41 (Y5).

EBITDA: \$17,660.50, \$58,373.96, \$112,652.46, \$206,507.95, \$339,331.41.

Taxes Incurred (24%): \$3,038.52, \$12,809.75, \$25,236.59, \$47,401.91, \$78,919.54.

Net Profit: \$9,621.98 (Y1), \$40,564.21 (Y2), \$79,915.87 (Y3), \$150,106.04 (Y4), \$249,911.87 (Y5).

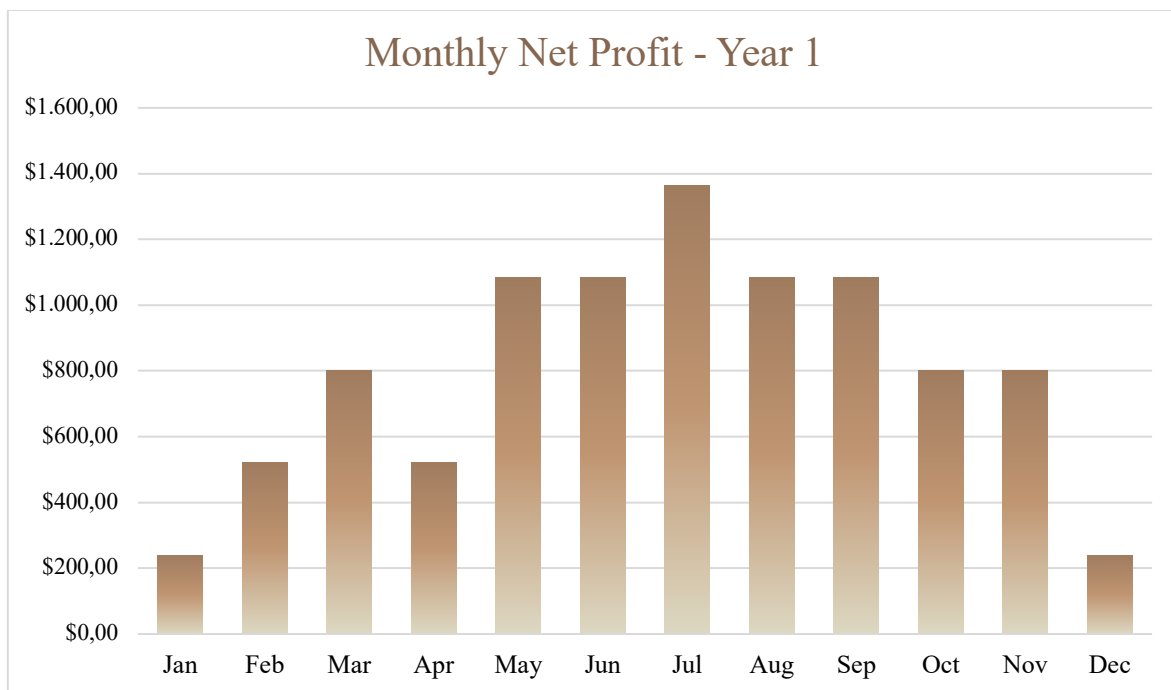
Net Profit Margin: 1.98%, 5.64%, 7.70%, 11.67%, 15.86%.

Through disciplined cost control, targeted client development, and the introduction of EIA capacity from Year 3, EarthLog Consulting is positioned to deliver reliable financial performance—moving from a light net profit in Year 1 to strong double-digit margins by the back half of the plan—while expanding access to high-quality, evidence-based environmental and hydrogeologic services across Central Florida.

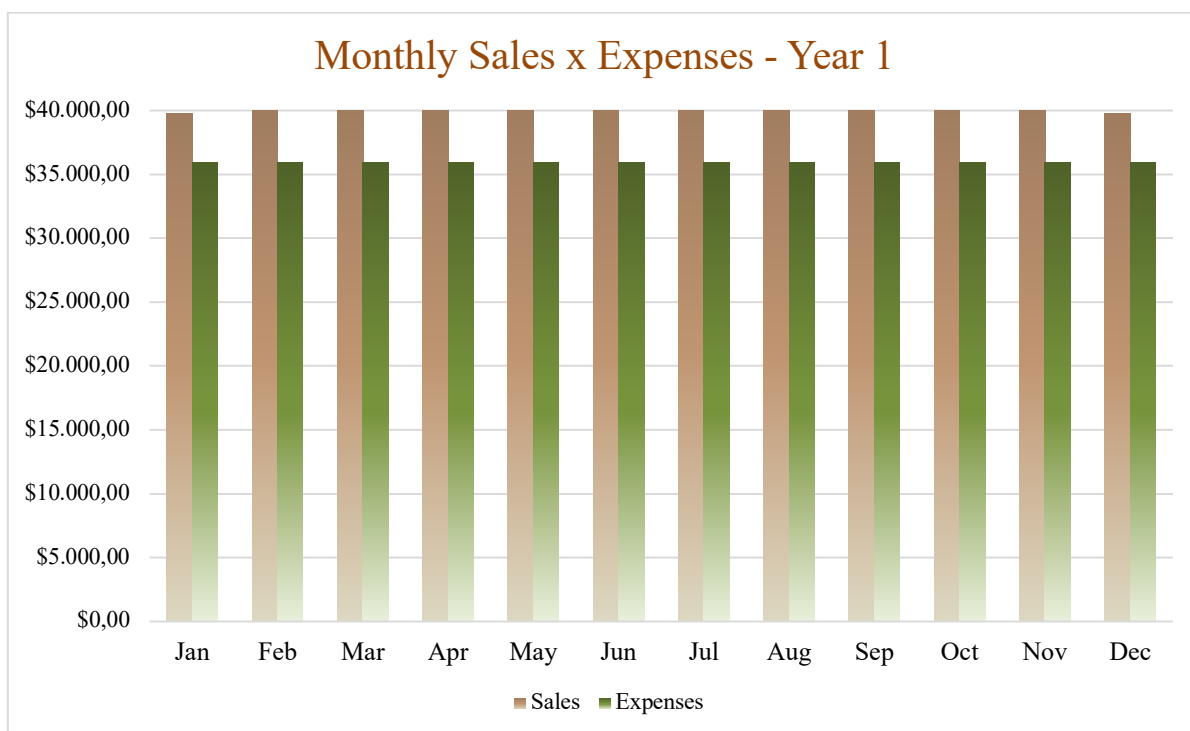
7.3.1 Annual Profit and Loss Table

Profit and Loss - EarthLog Consulting					
	Year 1	Year 2	Year 3	Year 4	Year 5
Sales	\$486,500.00	\$718,940.00	\$1,038,090.65	\$1,286,139.68	\$1,575,712.33
Direct Cost of Sales	\$42,739.50	\$61,166.04	\$88,238.19	\$108,031.73	\$130,780.92
Other Costs of Sales	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Cost of Sales	\$42,739.50	\$61,166.04	\$88,238.19	\$108,031.73	\$130,780.92
Gross Margin	\$443,760.50	\$657,773.96	\$949,852.46	\$1,178,107.95	\$1,444,931.41
Gross Margin %	91.30%	91.40%	91.50%	91.60%	91.70%
Expenses					
Payroll	\$333,000.00	\$488,000.00	\$686,000.00	\$800,000.00	\$910,000.00
Payroll Taxes	\$33,300.00	\$48,800.00	\$68,600.00	\$80,000.00	\$91,000.00
Depreciation	\$5,000.00	\$5,000.00	\$7,500.00	\$9,000.00	\$10,500.00
Rent	\$24,000.00	\$30,000.00	\$36,000.00	\$42,000.00	\$48,000.00
Insurance	\$7,500.00	\$9,000.00	\$11,000.00	\$13,000.00	\$15,000.00
Marketing/Promotion	\$10,000.00	\$12,000.00	\$15,000.00	\$18,000.00	\$20,000.00
Utilities/Internet/Phone	\$3,600.00	\$4,800.00	\$6,000.00	\$7,200.00	\$8,400.00
Employees Education	\$2,400.00	\$3,600.00	\$4,800.00	\$6,000.00	\$7,200.00
Accountant	\$3,600.00	\$4,200.00	\$4,800.00	\$5,400.00	\$6,000.00
Remodeling	\$8,700.00	\$0.00	\$5,000.00	\$0.00	\$0.00
Total Operating Expenses	\$431,100.00	\$604,400.00	\$844,700.00	\$980,600.00	\$1,116,100.00
Profit Before Interest and Taxes	\$12,660.50	\$53,373.96	\$105,152.46	\$197,507.95	\$328,831.41
EBITDA	\$17,660.50	\$58,373.96	\$112,652.46	\$206,507.95	\$339,331.41
Interest Expense	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Taxes Incurred	\$3,038.52	\$12,809.75	\$25,236.59	\$47,401.91	\$78,919.54
Net Other Income	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Net Profit	\$9,621.98	\$40,564.21	\$79,915.87	\$150,106.04	\$249,911.87
Net Profit/Sales	1.98%	5.64%	7.70%	11.67%	15.86%

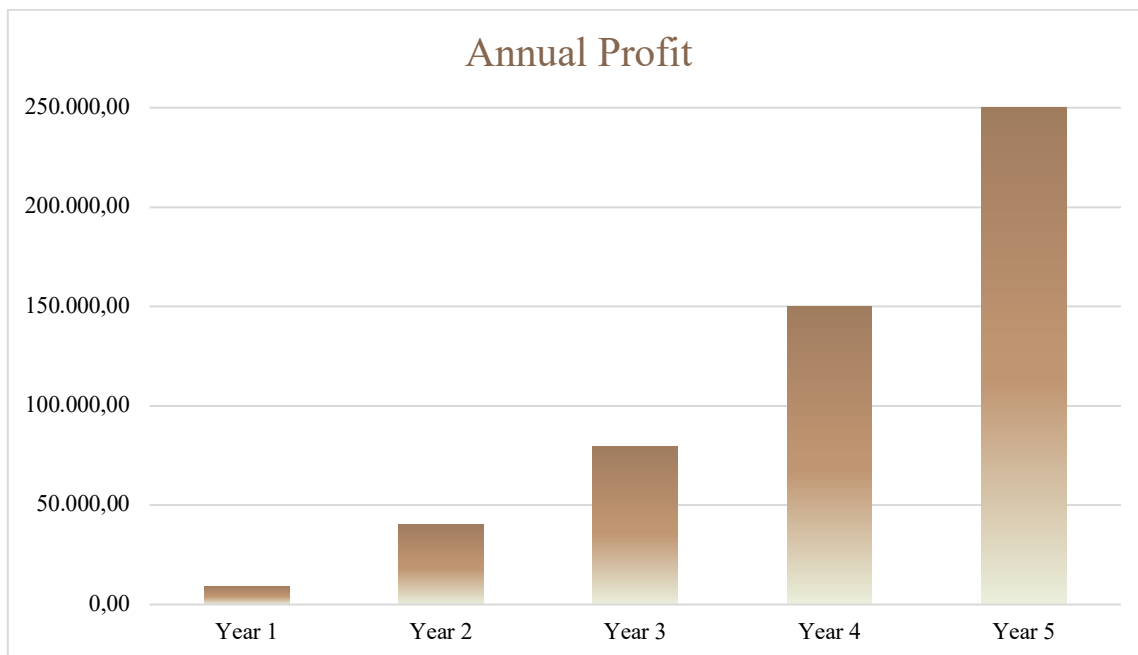
7.3.2 Monthly Profit Chart



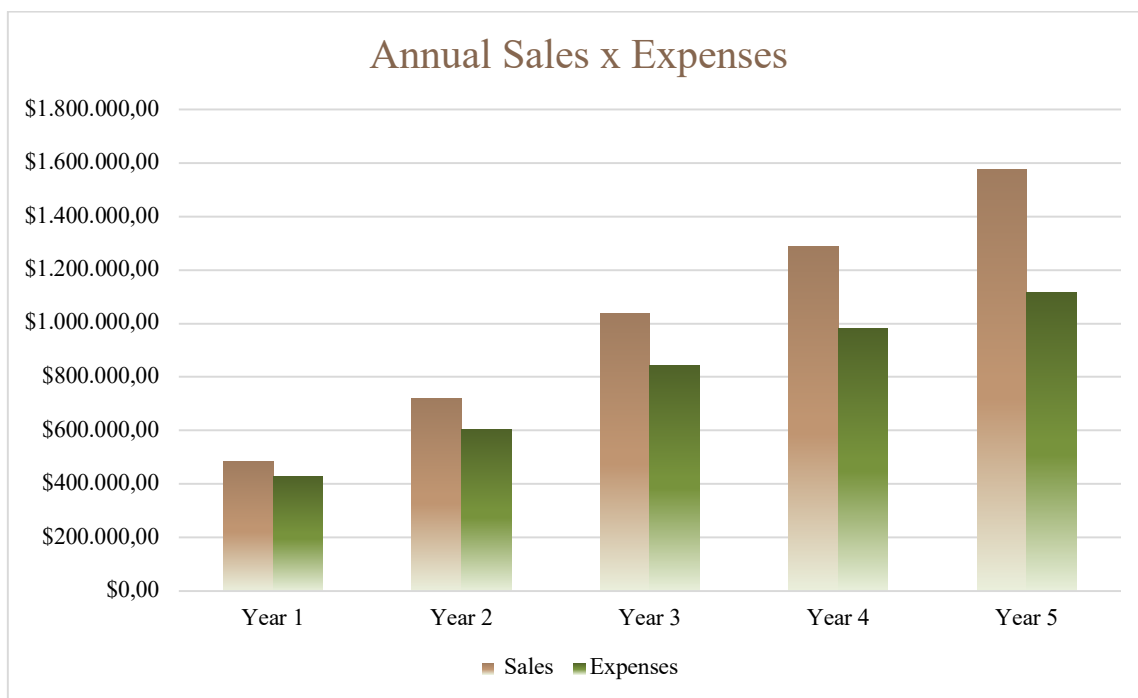
7.3.3 Monthly Expenses vs. Sales Chart



7.3.4 Annual Profit Chart



7.3.5 Annual Sales vs. Expenses Chart



7.4 Cash Flow Assumptions

EarthLog Consulting will adopt a financially conservative and self-sustaining cash-flow strategy, ensuring operational stability and long-term scalability. The business is self-funded—generating cash exclusively from operations—without loans, outside investors, or non-operating income sources.

Cash Inflows

All revenue is derived from consulting services. **Year 1** focuses on ESAs, applied geophysics, and hydrogeology; **EIAs** are introduced from **Year 3** as credentials and teaming mature. Under the 10% NWC policy, cash inflows from operations equal **cash sales (90% of the year's sales)** plus **collections of prior-year receivables (10% of the previous year)**.

Subtotal Cash from Operations (cash received):

- **Year 1: \$437,850.00**
- **Year 2: \$695,696.00**
- **Year 3: \$1,006,175.59**
- **Year 4: \$1,261,334.78**
- **Year 5: \$1,546,755.07**

(There is **no** non-operating income, sales tax, or debt proceeds. An initial **owner's equity** contribution of **\$20,000** occurs pre-launch in Year 1.)

Expenditures and Cash Management

Operating cash outflows grow with capacity and staffing while remaining disciplined. “Spent on operations” combines **cash OpEx + Direct Cost of Sales** (consistent with our P&L and break-even margins) **plus income taxes paid**, and **excludes non-cash depreciation**. CapEx equips geophysical operations and core software on a measured schedule.

Subtotal Spent on Operations (cash out):

- **Year 1: \$471,563.38**

- Year 2: \$673,879.52
- Year 3: \$950,674.42
- Year 4: \$1,127,036.68
- Year 5: \$1,315,302.89

Purchase of Long-term Assets (CapEx):

- Year 1: \$25,000.00
- Year 3: \$12,500.00
- Years 4–5: \$7,500.00 each

No dividends are planned during the horizon; free cash is reinvested to expand capacity, talent, marketing, and to build a **liquidity reserve of at least three months of operating expenses**.

Net Cash Flow and Cash Balance

This profile is typical for consulting: a **tight Year 1** as equipment is installed and working capital is built, followed by consistently positive operating cash as scale and mix improve.

Net Cash Flow (annual change in cash):

- Year 1: −\$38,713.38
- Year 2: +\$21,816.48
- Year 3: +\$43,001.17
- Year 4: +\$126,798.10
- Year 5: +\$223,952.18

Ending Cash Balance *(includes the initial \$20,000 equity):*

- Year 1: −\$18,713.38
- Year 2: \$3,103.10
- Year 3: \$46,104.27
- Year 4: \$172,902.37
- Year 5: \$396,854.55

Consistency Notes

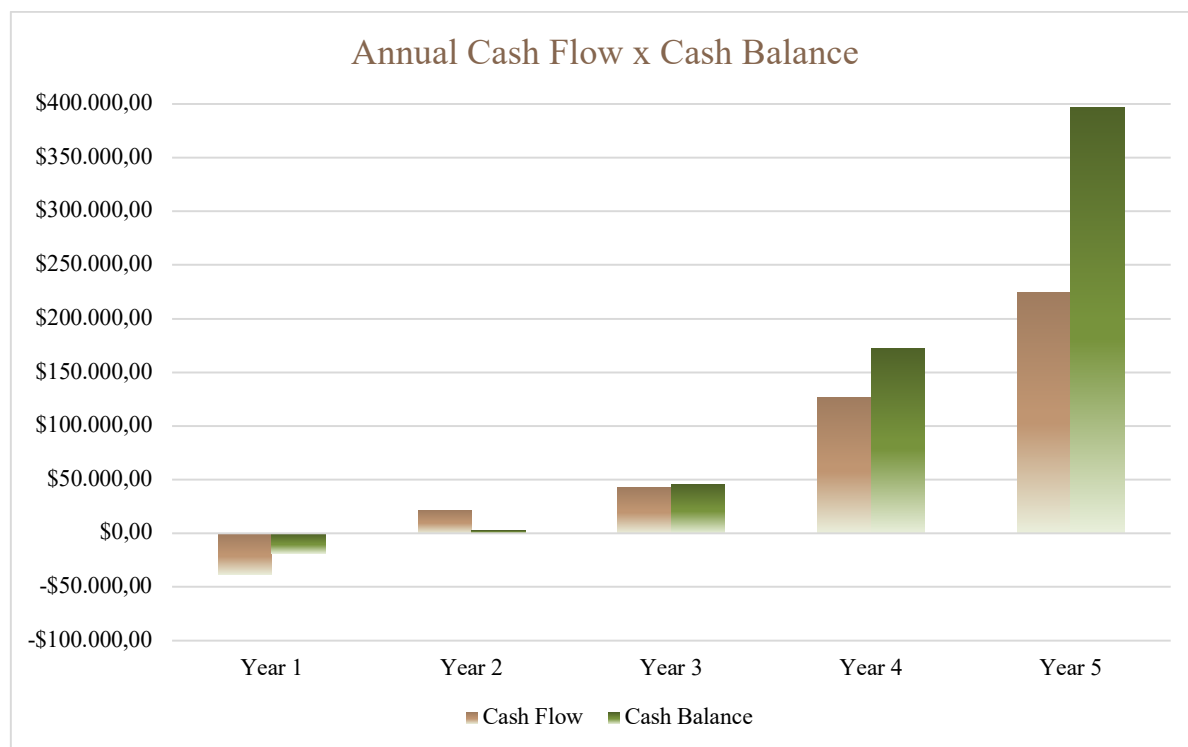
- **Direct Cost of Sales** in the cash model matches the **GM% used in Break-even** (Y1 91.30% → Y5 91.70%).
- **Taxes paid** mirror the P&L's **Taxes Incurred** each year.
- **Cash sales (90%) + receivables (10%)** reconciles exactly to the **NWC = 10% of sales** policy and to our indirect cash-flow calculation.
- **CapEx** aligns with the P&L **depreciation** trajectory.

7.4.1 Annual Cash Flow Table

<i>Cash Flow - EarthLog Consulting</i>					
	Year 1	Year 2	Year 3	Year 4	Year 5
Cash Received					
Cash from Operations					
Cash Sales (90% of Sales)	\$437,850.00	\$647,046.00	\$934,281.59	\$1,157,525.71	\$1,418,141.10
Cash from Receivables (10% of prior Sales)	\$0.00	\$48,650.00	\$71,894.00	\$103,809.07	\$128,613.97
Subtotal Cash from Operations	\$437,850.00	\$695,696.00	\$1,006,175.59	\$1,261,334.78	\$1,546,755.07
Additional Cash Received					
Non-Operating (Other) Income	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax / VAT / GST Received	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
New Current Borrowing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
New Other Liabilities (interest-free)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
New Long-term Liabilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales of Other Current Assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales of Long-term Assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
New Investment Received (Equity)	\$20,000.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal Cash Received	\$457,850.00	\$695,696.00	\$1,006,175.59	\$1,261,334.78	\$1,546,755.07
Expenditures from Operations					
Cash Spending (<i>cash OpEx + Direct COS</i>)	\$468,425.50	\$661,228.84	\$925,437.71	\$1,079,635.73	\$1,236,384.12
Bill Payments (<i>income taxes paid</i>)	\$3,137.88	\$12,650.68	\$25,236.71	\$47,400.95	\$78,918.77
Subtotal Spent on Operations	\$471,563.38	\$673,879.52	\$950,674.42	\$1,127,036.68	\$1,315,302.89

Additional Cash Spent Non-Operating (Other) Expense	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax / VAT / GST Paid Out	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Principal Repayment of Current Borrowing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Liabilities Principal Repayment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Long-term Liabilities Principal Repayment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Purchase Other Current Assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Purchase Long-term Assets (CapEx)	\$25,000.00	\$0.00	\$12,500.00	\$7,500.00	\$7,500.00
Dividends	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal Cash Spent	\$496,563.38	\$673,879.52	\$963,174.42	\$1,134,536.68	\$1,322,802.89
Net Cash Flow	-\$38,713.38	\$21,816.48	\$43,001.17	\$126,798.10	\$223,952.18
Cash Balance	-\$18,713.38	\$3,103.10	\$46,104.27	\$172,902.37	\$396,854.55

7.4.2. Annual Net Cash Flow and Cash Balance Chart



7.5 Balance Sheet Assumptions

EarthLog Consulting is committed to maintaining a disciplined and financially sound balance sheet over the next five years, prioritizing cash-driven operations, debt-free growth, and the steady build-up of equity through profitability and retained earnings.

Asset Growth

- **Current Assets.** Current assets consist of **cash and accounts receivable** (policy: receivables at **~10% of sales**; no inventory, no other current assets). Current assets rise from **\$9,621.98 in Year 1** to **\$534,619.97 in Year 5**, reflecting improving operating cash generation and a professional billing/collections cadence.
- **Long-Term Assets and Depreciation.** The plan includes an initial **\$25,000** equipment/software investment in **Year 1**, with scheduled refresh CapEx of **\$12,500 in Year 3** and **\$7,500 in Years 4–5**. **Accumulated depreciation** increases from **\$5,000 in Year 1** to **\$37,000 by Year 5**, moving **net long-term assets** from **\$20,000 in Year 1** to **\$15,500 in Year 5** (after refresh and depreciation).
- **Total Assets.** Total assets expand from **\$29,621.98 in Year 1** to **\$550,119.97 in Year 5**, supporting a scalable, expertise-driven consulting model.

Liability Management

- **Current Liabilities.** The model assumes **no accounts payable balances, no short-term borrowing, and no other current liabilities**. Taxes are recognized and paid through operations (rather than carried as a year-end payable), keeping current liabilities at **\$0** throughout the horizon.
- **Long-Term Liabilities.** EarthLog remains **debt-free**, preserving maximum financial flexibility and eliminating interest burden.
- **Total Liabilities.** With no debt and taxes paid as incurred, **total liabilities remain \$0** across Years 1–5.

Equity Growth

- **Paid-in Capital.** An initial **\$20,000** contribution is recorded as **paid-in capital** and remains constant; no additional equity injections are planned. With a total initial investment of **\$90,000**, the remaining **\$70,000** were allocated to the purchase of long-term equipment and software.
- **Total Capital (Equity).** Total equity rises from **\$29,621.98 in Year 1** to **\$550,119.97 in Year 5**, evidencing disciplined reinvestment and steady expansion of net worth. (Since liabilities are zero, **Total Assets = Total Liabilities + Capital** holds exactly each year).

7.5.1. Annual Balance Sheet Table

<i>Balance Sheet - EarthLog Consulting</i>					
	Year 1	Year 2	Year 3	Year 4	Year 5
Assets					
Current Assets					
Cash (operational, excl. \$20k seed)	-\$39,028.02	-\$16,707.81	\$26,292.99	\$153,094.13	\$377,048.74
Accounts Receivable (10% Sales)	\$48,650.00	\$71,894.00	\$103,809.07	\$128,613.97	\$157,571.23
Inventory	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Current Assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Current Assets	\$9,621.98	\$55,186.19	\$130,102.06	\$281,708.10	\$534,619.97
Long-term Assets					
Long-term Assets (Gross)	\$25,000.00	\$25,000.00	\$37,500.00	\$45,000.00	\$52,500.00
Accumulated Depreciation	-\$5,000.00	-\$10,000.00	-\$17,500.00	-\$26,500.00	-\$37,000.00
Total Long-term Assets	\$20,000.00	\$15,000.00	\$20,000.00	\$18,500.00	\$15,500.00
Total Assets	\$29,621.98	\$70,186.19	\$150,102.06	\$300,208.10	\$550,119.97
Liabilities and Capital					
Current Liabilities					
Accounts Payable	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Taxes Payable	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Short-term Funding (LOC/Bridge)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Current Liabilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal Current Liabilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Long-term Liabilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Liabilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Paid-in Capital	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00
Retained Earnings (cumulative)	\$9,621.98	\$50,186.19	\$130,102.06	\$280,208.10	\$530,119.97

Total Capital	\$29,621.98	\$70,186.19	\$150,102.06	\$300,208.10	\$550,119.97
Total Liabilities and Capital	\$29,621.98	\$70,186.19	\$150,102.06	\$300,208.10	\$550,119.97
Net Worth	\$29,621.98	\$70,186.19	\$150,102.06	\$300,208.10	\$550,119.97

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Appendix

Monthly Sales Forecast Table

<i>Monthly Sales Forecast - EarthLog Consulting</i>												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ESAs — Sales	\$9,800.00	\$9,900.00	\$10,000.00	\$9,900.00	\$10,100.00	\$10,100.00	\$10,200.00	\$10,100.00	\$10,100.00	\$10,000.00	\$10,000.00	\$9,800.00
ESAs — Direct Cost of Sales	\$860.94	\$869.72	\$878.51	\$869.72	\$889.29	\$889.29	\$898.07	\$889.29	\$889.29	\$878.51	\$878.51	\$860.92
Geophysical — Sales	\$13,475.00	\$13,612.50	\$13,750.00	\$13,612.50	\$13,887.50	\$13,887.50	\$14,025.00	\$13,887.50	\$13,887.50	\$13,750.00	\$13,750.00	\$13,475.00
Geophysical — Direct Cost of Sales	\$1,183.79	\$1,195.87	\$1,207.95	\$1,195.87	\$1,221.05	\$1,221.05	\$1,233.13	\$1,221.05	\$1,221.05	\$1,207.95	\$1,207.95	\$1,183.86
Hydro — Sales	\$16,455.83	\$16,623.75	\$16,791.67	\$16,623.75	\$16,959.58	\$16,959.58	\$17,127.50	\$16,959.58	\$16,959.58	\$16,791.67	\$16,791.67	\$16,455.84
Hydro — Direct Cost of Sales	\$1,445.66	\$1,460.42	\$1,475.17	\$1,460.42	\$1,488.55	\$1,488.55	\$1,503.31	\$1,488.55	\$1,488.55	\$1,475.17	\$1,475.17	\$1,445.67
Total Sales	\$39,730.83	\$40,136.25	\$40,541.67	\$40,136.25	\$40,947.08	\$40,947.08	\$41,352.50	\$40,947.08	\$40,947.08	\$40,541.67	\$40,541.67	\$39,730.84

Monthly Profit and Loss Table

Profit and Loss - EarthLog Consulting												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sales	\$39,730.83	\$40,136.25	\$40,541.67	\$40,136.25	\$40,947.08	\$40,947.08	\$41,352.50	\$40,947.08	\$40,947.08	\$40,541.67	\$40,541.67	\$39,730.84
Direct Cost of Sales	\$3,490.39	\$3,526.01	\$3,561.63	\$3,526.01	\$3,598.89	\$3,598.89	\$3,634.51	\$3,598.89	\$3,598.89	\$3,561.63	\$3,561.63	\$3,490.45
Other Costs of Sales	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Cost of Sales	\$3,490.39	\$3,526.01	\$3,561.63	\$3,526.01	\$3,598.89	\$3,598.89	\$3,634.51	\$3,598.89	\$3,598.89	\$3,561.63	\$3,561.63	\$3,490.45
Gross Margin	\$36,240.44	\$36,610.24	\$36,980.04	\$36,610.24	\$37,348.19	\$37,348.19	\$37,718.00	\$37,348.19	\$37,348.19	\$36,980.04	\$36,980.04	\$36,240.39
Gross Margin %	91.30%	91.30%	91.30%	91.30%	91.30%	91.30%	91.30%	91.30%	91.30%	91.30%	91.30%	91.30%
Payroll	\$27,750.00	\$27,750.00	\$27,750.00	\$27,750.00	\$27,750.00	\$27,750.00	\$27,750.00	\$27,750.00	\$27,750.00	\$27,750.00	\$27,750.00	\$27,750.00
Payroll Taxes (10%)	\$2,775.00	\$2,775.00	\$2,775.00	\$2,775.00	\$2,775.00	\$2,775.00	\$2,775.00	\$2,775.00	\$2,775.00	\$2,775.00	\$2,775.00	\$2,775.00
Depreciation	\$416.67	\$416.67	\$416.67	\$416.67	\$416.67	\$416.67	\$416.67	\$416.67	\$416.67	\$416.67	\$416.67	\$416.63
Rent	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00
Insurance	\$625.00	\$625.00	\$625.00	\$625.00	\$625.00	\$625.00	\$625.00	\$625.00	\$625.00	\$625.00	\$625.00	\$625.00
Marketing/Promotion	\$833.33	\$833.33	\$833.33	\$833.33	\$833.33	\$833.33	\$833.33	\$833.33	\$833.33	\$833.33	\$833.33	\$833.37
Utilities/Internet/Phone	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00
Employees Education	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00
Professional Fees	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00
Office & Admin	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Remodeling	\$725.00	\$725.00	\$725.00	\$725.00	\$725.00	\$725.00	\$725.00	\$725.00	\$725.00	\$725.00	\$725.00	\$725.00
Total Operating Expenses	\$35,925.00	\$35,925.00	\$35,925.00	\$35,925.00	\$35,925.00	\$35,925.00	\$35,925.00	\$35,925.00	\$35,925.00	\$35,925.00	\$35,925.00	\$35,925.00
Profit Before Interest and Taxes	\$315.44	\$685.24	\$1,055.04	\$685.24	\$1,424.84	\$1,424.84	\$1,794.64	\$1,424.84	\$1,424.84	\$1,055.04	\$1,055.04	\$315.46
EBITDA	\$732.11	\$1,101.91	\$1,471.71	\$1,101.91	\$1,841.51	\$1,841.51	\$2,211.31	\$1,841.51	\$1,841.51	\$1,471.71	\$1,471.71	\$732.09
Interest Expense	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Taxes Incurred	\$75.71	\$164.46	\$253.21	\$164.46	\$341.96	\$341.96	\$430.71	\$341.96	\$341.96	\$253.21	\$253.21	\$75.71
Net Other Income	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Net Profit	\$239.73	\$520.78	\$801.83	\$520.78	\$1,082.88	\$1,082.88	\$1,363.93	\$1,082.88	\$1,082.88	\$801.83	\$801.83	\$239.75
Net Profit/Sales	0.60%	1.30%	1.98%	1.30%	2.64%	2.64%	3.30%	2.64%	2.64%	1.98%	1.98%	0.60%

Monthly Cash Flow Table

Cash Flow - EarthLog Consulting												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cash Received												
Cash from Operations												
Cash Sales (90% of Sales)	\$35,757.75	\$36,122.63	\$36,487.50	\$36,122.63	\$36,852.37	\$36,852.37	\$37,217.25	\$36,852.37	\$36,852.37	\$36,487.50	\$36,487.50	\$35,757.76
Cash from Receivables	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal Cash from Operations	\$35,757.75	\$36,122.63	\$36,487.50	\$36,122.63	\$36,852.37	\$36,852.37	\$37,217.25	\$36,852.37	\$36,852.37	\$36,487.50	\$36,487.50	\$35,757.76
Additional Cash Received												
New Investment Received (Equity)	\$20,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal Cash Received	\$55,757.75	\$36,122.63	\$36,487.50	\$36,122.63	\$36,852.37	\$36,852.37	\$37,217.25	\$36,852.37	\$36,852.37	\$36,487.50	\$36,487.50	\$35,757.76
					220							
Expenditures from Operations												
Cash Spending (cash OpEx + Direct COS)	\$38,964.91	\$39,000.18	\$39,035.46	\$39,000.18	\$39,070.73	\$39,070.73	\$39,106.00	\$39,070.73	\$39,070.73	\$39,035.46	\$39,035.46	\$38,964.93
Bill Payments (income taxes paid)	\$78.18	\$169.86	\$261.79	\$169.86	\$353.78	\$353.78	\$444.79	\$353.78	\$353.78	\$261.79	\$261.79	\$74.70
Subtotal Spent on Operations	\$39,043.09	\$39,170.04	\$39,297.25	\$39,170.04	\$39,424.51	\$39,424.51	\$39,550.79	\$39,424.51	\$39,424.51	\$39,297.25	\$39,297.25	\$39,039.63
Additional Cash Spent												
Purchase Long-term Assets (CapEx)	\$25,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal Cash Spent	\$64,043.09	\$39,170.04	\$39,297.25	\$39,170.04	\$39,424.51	\$39,424.51	\$39,550.79	\$39,424.51	\$39,424.51	\$39,297.25	\$39,297.25	\$39,039.63
Net Cash Flow	-\$8,285.34	-\$3,047.41	-\$2,809.75	-\$3,047.41	-\$2,572.14	-\$2,572.14	-\$2,333.54	-\$2,572.14	-\$2,572.14	-\$2,809.75	-\$2,809.75	-\$3,281.87
Cash Balance (excl. pre-opening \$20k)	-\$8,285.34	-\$11,332.75	-\$14,142.50	-\$17,189.91	-\$19,762.05	-\$22,334.19	-\$24,667.73	-\$27,239.87	-\$29,812.01	-\$32,621.76	-\$35,431.51	-\$38,713.38

Monthly Balance Sheet Table

<i>Balance Sheet - EarthLog Consulting</i>												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Accounts Payable	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Taxes Payable (balancing accrual)	\$31.34	\$60.11	\$86.03	\$114.79	\$137.81	\$160.83	\$181.94	\$204.95	\$227.97	\$253.89	\$279.81	\$0.00
Short-term Funding (LOC/Bridge)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Current Liabilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal Current Liabilities	\$31.34	\$60.11	\$86.03	\$114.79	\$137.81	\$160.83	\$181.94	\$204.95	\$227.97	\$253.89	\$279.81	\$0.00
Long-term Liabilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Liabilities	\$31.34	\$60.11	\$86.03	\$114.79	\$137.81	\$160.83	\$181.94	\$204.95	\$227.97	\$253.89	\$279.81	\$0.00
Paid-in Capital	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00
Retained Earnings (cumulative)	\$239.73	\$760.51	\$1,562.34	\$2,083.12	\$3,166.00	\$4,248.88	\$5,612.81	\$6,695.69	\$7,778.57	\$8,580.40	\$9,382.23	\$9,621.98
Total Capital (Equity)	\$20,239.73	\$20,760.51	\$21,562.34	\$22,083.12	\$23,166.00	\$24,248.88	\$25,612.81	\$26,695.69	\$27,778.57	\$28,580.40	\$29,382.23	\$29,621.98
Total Liabilities and Capital	\$20,271.07	\$20,820.62	\$21,648.37	\$22,197.91	\$23,303.81	\$24,409.71	\$25,794.75	\$26,900.64	\$28,006.54	\$28,834.30	\$29,662.04	\$29,621.98
Net Worth	\$20,239.73	\$20,760.51	\$21,562.34	\$22,083.12	\$23,166.00	\$24,248.88	\$25,612.81	\$26,695.69	\$27,778.57	\$28,580.40	\$29,382.23	\$29,621.98

C.II – Second Prong – Well-Positioned to Advance the Proposed Endeavor

Please refer to all the documents in Exhibit B



JUNE 09, 2013

Rafael Lima Dessart

has successfully completed

The Dynamic Earth: A Course for Educators

a 4 week online non-credit course authorized by American Museum of Natural History and offered through Coursera

David A. Mather

Edmond A. Mather, Ph.D.
Curator, Department of Earth and Planetary Sciences
Professor, Richard Gilbreath Graduate School
American Museum of Natural History

Rosamond Kiger

Rosamond Kiger, Ph.D.
Senior Director, Science Education
American Museum of Natural History

**VERIFIED
CERTIFICATE**



Verify at coursera.org/verify/5UP658KM68

Coursera has confirmed the identity of this individual and their participation in the course.

This statement does not affirm enrollment at The American Museum of Natural History. It does not confer a grade, course credit, or degree.

Certificate



ABES – BRAZILIAN ASSOCIATION OF SANITARY
AND ENVIRONMENTAL ENGINEERING
National Chapter of AIDIS

Granted to **Rafael Lima Dessart**

for participating in the course *Geotechnologies for Natural Disasters*

(16 hours)

taught by **Tania Sausen, Manoel Sousa Jr., Anderson Nedel, and Silvia Saito**

held from 05/04 to 05/05/2010.

Porto Alegre, April 5, 2010

-----// signature //-----

National President

-----// signature //-----

President of the Chapter

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 8, 2025.

Certificado



ABES - ASSOCIAÇÃO BRASILEIRA DE
ENGENHARIA SANITÁRIA E AMBIENTAL
Capítulo Nacional de AIDIS



Conferido a Rafael Lima Dessart

por sua participação no curso Geotecnologias para Desastres
Naturais (16 horas / aula)

Ministrado por Tania Sausen, Manoel Sousa Jr., Anderson Nedel e Silvia Saito

realizado no período de 04 ²²⁶/05 a 05/05 de 2010.

Porto Alegre, 05 de abril de 2010

Presidente Nacional

Presidente da Seção

ALLCOMP GEOTECHNOLOGY & AGRICULTURE

Certificate of Participation

I hereby certify that:

RAFAEL LIMA DESSART

Participated in the Workshop on Updates in Topography and Geodesy, with a total duration of 6 hours and 30 minutes, organized and promoted by Allcomp Geotechnology & Agriculture, held on December 14, 2012, at UNISINOS, in São Leopoldo/RS.

Workshop on Updates in Topography and Geodesy



Porto Alegre, December 14, 2012

-----// signature //-----
Eng. Marciano Carneiro

-----// signature //-----
Eng. Deise Aline Turcatto

-----// signature //-----
Tech. Ricardo Rodrigues

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 8, 2025.

ALLCOMP GEOTECNOLOGIA E AGRICULTURA

Certificado de Participação

Certifico que:

RAFAEL LIMA DESSART

Participou do Workshop sobre Atualização em Topografia e Geodésia, com duração de 06:30 (seis horas e trinta minutos), promovido e organizado por Allcomp Geotecnologia e Agricultura, realizado no dia 14 de dezembro de 2012, na UNISINOS em São Leopoldo/RS.

Workshop Atualização em Topografia e Geodésia

allcomp
geotecnologia e agricultura

Porto Alegre, 14 de dezembro de 2012


Engº Marciano Carneiro


Engª Deise Aline Turcatto


Tec. Ricardo Rodrigues

CERTIFICATE

The Scientific Committee of the VI International Conference on Teaching, Research, and Extension (SIEPE) certifies that **Leonardo Rosa da Silva** presented the work titled **ANALYSIS OF ALKALINE EARTH METALS IN WATER IN CAÇAPAVA DO SUL - RS**, authored by **Leonardo Rosa da Silva, Stener Camargo de Oliveira, Cassia de Sena Freitas, Caroline Vivian Mendes, Rafael de Lima Dessart, and Cristiane Heredia Gomes**, in the **Research** category, in the field of **Exact and Earth Sciences**, in the **Oral Presentation** modality of the Scientific Exhibition of the VI SIEPE, held from November 24 to 26, 2014, in Bagé, RS.

Bagé, November 27, 2014.

230

-----// signature //-----

Ulrika Arns

President



the authenticity of this document can be verified at:

<https://eventos.unipampa.edu.br/certificados/validar/34D8A084>

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.

CERTIFICADO

O Comitê Científico do VI Salão Internacional de Ensino, Pesquisa e Extensão (SIEPE) certifica que **Leonardo Rosa da Silva** apresentou o trabalho intitulado **ANÁLISE DE METAIS ALCALINOS TERROSOS NA ÁGUA EM CAÇAPAVA DO SUL-RS**, de autoria de **Leonardo Rosa da Silva, Stener Camargo de Oliveira, Cassia de Sena Freitas, Caroline Vivian Mendes, Rafael de Lima Dessart e Cristiane Heredia Gomes**, na categoria **Pesquisa**, na área **Ciências Exatas e da Terra**, modalidade **Apresentação Oral** na Mostra Científica do VI SIEPE, realizada entre os dias 24 e 26 de Novembro de 2014, em Bagé, RS.

Bagé, 27 de Novembro de 2014.

232



Ulrika Arns
Reitora



a autenticidade deste documento pode ser verificada através da URL:
<https://eventos.unipampa.edu.br/certificados/validar/34D8A084>



CERTIFICATE OF COMPLETION

*We hereby certify that **RAFAEL LIMA DESSART** has successfully completed the*
“REMOTE SENSING DISTANCE LEARNING COURSE: CONTINUOUS LEARNING,”

organized and delivered by INPE – OBT, ³³from March 10 to June 16, 2014.

São José dos Campos, July 4, 2014

-----// signature //-----

Danusa Aparecida Batista Caramello - SIAPE 1152064
Head of the Competency-Based Training Management
Service - SGC

-----// signature //-----

Vera Lúcia Justo Perez - SIAPE 1180950
Coordinator of Human Resources - CRH

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.



CERTIFICADO DE CONCLUSÃO

Certificamos que

RAFAEL LIMA DESSART

concluiu com aproveitamento o

"CURSO À DISTÂNCIA DE SENSORIAMENTO REMOTO: APRENDIZAGEM CONTINUADA",

organizado e ministrado pelo INPE - OBT no período de 10 de março a 16 de junho de 2014.

235

São José dos Campos, 4 de julho de 2014

Danusa Aparecida Batista Caramello - SIAPE 1152064
Chefe do Serviço de Gestão de Capacitação por
Competências - SGC

Vera Lúcia Justo Perez - SIAPE 1180950
Coordenadora de Recursos Humanos - CRH



MINISTRY OF EDUCATION
FEDERAL UNIVERSITY OF PAMPA FOUNDATION



CERTIFICATE

I hereby certify that Rafael Lima Dessart participated in the Pedagogical Training Course, taught by Prof. Dr. Léa das Graças Camargo Anastasiou, organized by the Vice President's Office for Undergraduate Studies, held from 07/15/2014 to 07/17/2014, at the Caçapava do Sul campus, with a total workload of 24 hours.

Bagé, 07/18/2014.

-----// signature //-----

Prof. Dr. Elena Maria Billig Mello
Vice-President for Undergraduate Studies

the authenticity of this document can be verified at:
<https://eventos.unipampa.edu.br/certificados/validar/OCB43EED>

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.



MINISTÉRIO DA EDUCAÇÃO
FUNDAÇÃO UNIVERSIDADE FEDERAL DO PAMPA



CERTIFICADO

Certifico que Rafael Lima Dessart participou do Curso de Formação Pedagógica, ministrado pela Prof.^a Dr.^a Léa das Graças Camargo Anastasiou, organizado pela Pró-Reitoria de Graduação, no período de 15/07/2014 a 17/07/2014, no campus Caçapava do Sul, com carga horária de 24 horas.

Bagé, 18/07/2014.

Prof. Dr. Elena Maria Billig Mello
Pró-Reitora de Graduação



UNIVERSITY OF VALE DO RIO DOS SINOS

Recognized by Ministerial Ordinance No. 453, dated 11/21/1983, published in the Federal Official Gazette on 11/22/1983
São Leopoldo, Rio Grande do Sul – Brazil

CERTIFICATE

We hereby award **RAFAEL LIMA DESSART**

239

this certificate of INTERNSHIP

with the VALE DO RIO DOCE PROJECT

Period: July 1, 2005 to July 30, 2007

Duration: 3,872 hours

São Leopoldo, August 31, 2007.

-----// signature //-----

Cornélia Hulda Volkart

Director of the Academic Unit for Continuing Education

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.



UNISINOS

UNIVERSIDADE DO VALE DO RIO DOS SINOS

Reconhecida pela Portaria Ministerial n.º 453, de 21/11/1983, D.O.U. de 22/11/1983

São Leopoldo - Rio Grande do Sul - Brasil

CERTIFICADO

Concedemos a **RAFAEL LIMA DESSART**

este certificado de **ESTÁGIO**

junto ao **PROJETO VALE DO RIO DOCE**

Realização: 01 de julho de 2005 a 30 de julho de 2007

Duração: 3872 horas

241

São Leopoldo, 31 de agosto de 2007.

Cornélio Hukla Volkart
Diretora da Unidade Acadêmica de Educação Continuada



FEDERATIVE REPUBLIC OF BRAZIL
MINISTRY OF EDUCATION
FEDERAL UNIVERSITY OF PAMPA
VICE-PRESIDENT'S OFFICE FOR EXTENSION AND CULTURE



CERTIFICATE

We hereby certify that

Rafael Lima Dessart

participated in the extension activity "**Virtual ²⁴²Geological Museum of the Pampa**", carried out in the municipality of Caçapava do Sul – RS, from 03/27/2017 to 12/31/2017, as a **Collaborator**, totaling 160 hours.

-----// signature //-----

Nádia Fátima dos Santos Bucco
Vice-President for Extension and Culture

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.



REPÚBLICA FEDERATIVA DO BRASIL
MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DO PAMPA
PRÓ-REITORIA DE EXTENSÃO E CULTURA



CERTIFICADO

Certificamos que

Rafael Lima Dessart

participou da ação de extensão "**Museu Virtual Geológico do Pampa**", realizada no Município de Caçapava do Sul-RS no período de 27/03/2017 a 31/12/2017, como **Colaborador** perfazendo uma carga horária de 160 horas.



Nádia Fátima dos Santos Bucco
Pró-Reitora de Extensão e Cultura



V Geophysics Academic Week
From November 10 to 14, 2014
Federal University of Pampa – Caçapava do Sul Campus

Certificate

We hereby certify that the student RAFAEL LIMA DESSART participated in the continuing education course MINERAL EXPLORATION AND THE JUNIOR COMPANIES MARKET – AN EXAMPLE FROM ORINOCO GOLD, offered during the V Geophysics Academic Week at the Federal University of Pampa – Caçapava do Sul Campus, held from November 10 to 14, 2014. Course duration: 8 hours.

Caçapava do Sul, November 14, 2014.

-----// signature //-----

Prof. Dr. Maximilian Fries
General Coordinator of the Event

-----// signature //-----

Prof. Dr. Moisés Raizera
Head of the Program

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.



V Semana Acadêmica da Geofísica
De 10 a 14 de novembro de 2014
Universidade Federal do Pampa – Campus Caçapava do Sul

Certificado

Certificamos que o(a) aluno(a) RAFAEL LIMA DESSART participou do curso de atualização EXPLORAÇÃO MINERAL E O MERCADO DAS JR. COMPANIES - UM EXEMPLO DA ORINOCO GOLD ministrado durante a V Semana Acadêmica da Geofísica da Universidade Federal do Pampa – Campus Caçapava do Sul, realizada de 10 a 14 de novembro de 2014. Carga horária do curso: 8 horas.

Caçapava do Sul, 14 de novembro de 2014.

Prof. Dr. Maximilian Fries
Coordenador Geral do Evento

Prof. Dr. Moisés Raizera
Coordenador do Curso



CERTIFICATE

**1st Symposium on Volcanism and Associated
Environments**

June 13 – 18, 1999

Gramado – RS

248

We hereby certify that ***Rafael Lima Dessart***

participated in the 1st Symposium on Volcanism and Associated Environments, held from June 13 to 18, 1999, in Gramado – Rio Grande do Sul.

-----// signature //-----

Prof. Dr. Evandro Fernandes de Lima
President of the Organizing Committee

Gramado, June 18, 1999.

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.



CERTIFICADO

**1º Simpósio sobre Vulcanismo e Ambientes
Associados
13 – 18 junho 1999
Gramado - RS**

Certificamos que

Rafael Lima Desart

250

participou do 1º Simpósio sobre Vulcanismo e Ambientes Associados, no período de 13 a 18 de junho de 1999, em Gramado – Rio Grande do Sul.

Gramado, 18 de junho de 1999.

Prof. Dr. Evandro Fernandes de Lima
Presidente da Comissão Organizadora

II INTERNATIONAL SEMINAR ON
AGROECOLOGY

III STATE SEMINAR ON AGROECOLOGY
III NATIONAL MEETING ON AGROECOLOGY RESEARCH

Certificate

251

We hereby certify that Rafael Lima Dessart participated in the II International Seminar on Agroecology, III State Seminar on Agroecology, and III National Meeting on Agroecology Research, held from November 26 to 28, 2001, at the PUC Event Center in Porto Alegre/RS, with a total workload of 25 hours.

-----// signature //-----

Lino De David
President of EMATER-RS

-----// signature //-----

Roberto Carbonera
President of FEPAGRO

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.

II SEMINÁRIO INTERNACIONAL SOBRE **AGROECOLOGIA**

III SEMINÁRIO ESTADUAL SOBRE AGROECOLOGIA
III ENCONTRO NACIONAL SOBRE PESQUISA EM AGROECOLOGIA



Certificado

Certificamos que Rafael Lima Dessart

253

participou no

II Seminário Internacional sobre Agroecologia, III Seminário Estadual sobre Agroecologia e III Encontro Nacional sobre Pesquisa em Agroecologia, realizados no período de 26 a 28 de novembro de 2001, no Centro de Eventos da PUC, em Porto Alegre/RS, com carga horária de 25 horas.

Lino De David
Presidente da EMATER-RS

Roberto Carbonera
Presidente da FEPAGRO

9°SIEPE

INTERNATIONAL EXHIBITION OF
TEACHING, RESEARCH AND EXTENSION



o conhecimento
vai além das
fronteiras

21 a 23 de novembro de 2017

Fronteira da Paz
Universidade Federal do Pampa
Campus Santana do Livramento

el conocimiento
va más allá de
las fronteras

21 al 23 de noviembre de 2017

Fronteira da Paz
Universidade Federal do Pampa
Campus Santana do Livramento

knowledge
beyond
borders

November 21st to 23rd, 2017

Brazil/Uruguay border
Universidade Federal do Pampa
Campus Santana do Livramento

eventos.unipampa.edu.br/siepe

certificate

We hereby certify that **Rafael Lima Dessart** participated as a reviewer of abstracts submitted to the Scientific Exhibition of the 9th International Conference on Teaching, Research and Extension (SIEPE). The activities took place from October 1 to 18, 2017.

Santana do Livramento, November 10, 2017.

-----// signature //-----

Marco Antonio Fontoura Hansen
President of the Federal University of Pampa

the authenticity of this document can be verified at:
<https://eventos.unipampa.edu.br/certificados/validar/1D6A97D2>

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.

9º SIEPE

SALÃO INTERNACIONAL DE
ENSINO, PESQUISA E EXTENSÃO



o conhecimento
vai além das
fronteiras

21 a 23 de novembro de 2017

Fronteira da Paz
Universidade Federal do Pampa
Campus Santana do Livramento

el conocimiento
va más allá de
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knowledge
beyond
borders

November 21st to 23rd, 2017

Brazil/Uruguay border
Universidade Federal do Pampa
Campus Santana do Livramento

eventos.unipampa.edu.br/siepe

certificado

Certificamos que **Rafael Lima Dessart** participou como avaliador de resumos submetidos para a Mostra Científica do 9º Salão Internacional de Ensino, Pesquisa e Extensão (SIEPE). As atividades foram realizadas entre os dias 1º e 18 de outubro de 2017.

256

Santana do Livramento, 10 de novembro de 2017.

Marco Antonio Fontoura Hansen
Reitor da Universidade Federal do Pampa

a autenticidade deste documento pode ser verificada através da URL:
<https://eventos.unipampa.edu.br/certificados/validar/1D6A97D2>

9°SIEPE

INTERNATIONAL EXHIBITION OF
TEACHING, RESEARCH AND EXTENSION



o conhecimento
vai além das
fronteiras

21 a 23 de novembro de 2017

Fronteira da Paz
Universidade Federal do Pampa
Campus Santana do Livramento

el conocimiento
va más allá de
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21 al 23 de noviembre de 2017

Fronteira da Paz
Universidade Federal do Pampa
Campus Santana do Livramento

knowledge
beyond
borders

November 21st to 23rd, 2017

Brazil/Uruguay border
Universidade Federal do Pampa
Campus Santana do Livramento

eventos.unipampa.edu.br/siepe

certificate

We hereby certify that **Rafael Dessart** participated as an attendee in the 9th International Conference on Teaching, Research and Extension (SIEPE), held from November 21 to 23, 2017, in Santana do Livramento, RS. The event had a total workload of 40 hours.

Santana do Livramento, November 24, 2017.

-----// signature //--

Marco Antonio Fontoura Hansen
President of the Federal University of Pampa

the authenticity of this document can be verified at:
<https://eventos.unipampa.edu.br/certificados/validar/E24B5975>

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.

9º SIEPE

SALÃO INTERNACIONAL DE
ENSINO, PESQUISA E EXTENSÃO



o conhecimento
vai além das
fronteiras

21 a 23 de novembro de 2017

Fronteira da Paz
Universidade Federal do Pampa
Campus Santana do Livramento

el conocimiento
vá más allá de
las fronteras

21 al 23 de noviembre de 2017

Fronteira da Paz
Universidade Federal do Pampa
Campus Santana do Livramento

knowledge
beyond
borders

November 21st to 23rd, 2017

Brasil/Uruguay border
Universidade Federal do Pampa
Campus Santana do Livramento

eventos.unipampa.edu.br/siepe

certificado

Certificamos que **Rafael Dessart** participou como ouvinte no 9º Salão Internacional de Ensino, Pesquisa e Extensão (SIEPE), realizado entre os dias 21 e 23 de novembro de 2017, em Santana do Livramento, RS. O evento teve carga horária total de 40 horas.

259

Santana do Livramento, 24 de novembro de 2017.

Marco Antonio Fontoura Hansen
Reitor da Universidade Federal do Pampa

a autenticidade deste documento pode ser verificada através da URL:
<https://eventos.unipampa.edu.br/certificados/validar/E24B5975>



We hereby certify that

Rafael Dessart

Participated in the ²⁶Online Seminar
“GIS Day: Connected to the Future through Geocollaboration!”,
held on November 14, 2012, at 11 a.m. (UTC -2), organized by
Imagem and MundoGEO, with a total duration of 60 minutes.

-----// signature //-----

Emerson Zanon Granemann
Director and Publisher | MundoGEO

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.



Certificamos que

Rafael Dessart

Participou do Seminário Online

"GIS Day: Conectados ao futuro através da Geocolaboração!",
no dia 14 de novembro de 2012 às 11h (UTC -2), realizado
pela Imgem e MundoGEO, com carga horária de 60 minutos.



Emerson Zanon Granemann
Diretor e Publisher | MundoGEO



We hereby certify that

Rafael Dessart

Participated in the Online Seminar
“Google Products – Enhancing the Use of Maps for Your Business”,
held on March 12, 2013, at 2:30 p.m. (UTC -3), organized
by Geoambiente and MundoGEO, with a total duration of 60 minutes.

-----// signature //-----

Emerson Zanon Granemann
Director and Publisher | MundoGEO

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.



Certificamos que

Rafael Dessart

Participou do Seminário Online

"Produtos Google - Potencializando ²⁰⁵ uso dos mapas para seus Negócios",
no dia 12 de março de 2013 às 14h30 (UTC -3), realizado
pela Geoambiente e MundoGEO, com carga horária de 60 minutos.

A handwritten signature in black ink, appearing to read 'Emerson Zanon Granemann'.

Emerson Zanon Granemann
Diretor e Publisher | MundoGEO

Certificate

Rafael Lima Dessart

Participated on May 24, 2018,²⁶⁶ at 2:30 p.m. in the webinar
“Geological and Geotechnical Investigations for Infrastructure Projects”,
presented by **João Jerônimo Monticeli**, with a duration of 1 hour.



-----// signature //-----

Shoshana Signer | Director | Oficina de Textos

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

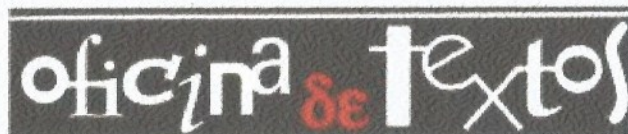
Raphael Michels Fantinato de Moura.

Date: July 10, 2025.

Certificado

Rafael Lima Dessart

Participou, no dia 24 de maio de ²⁶⁸2018 às 14h30, do webinar
“Investigações geológico-geotécnicas para obras de infraestrutura”
apresentado por João Jerônimo Monticeli, com carga horária de 1h.



Shoshana Signer | Diretora | Oficina de Textos



V Geophysics Academic Week
From November 10 to 14, 2014
Federal University of Pampa – Caçapava do Sul Campus

Certificate

We hereby certify that the student RAFAEL LIMA DESSART participated in the Lecture Series held during the V Geophysics Academic Week, organized by the Federal University of Pampa – Caçapava do Sul Campus, from November 10 to 14.

269

Caçapava do Sul, November 14, 2014.

-----// signature //-----

Prof. Dr. Maximilian Fries
General Coordinator of the Event

-----// signature //-----

Prof. Dr. Moisés Raizera
Head of the Program

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.



V Semana Acadêmica da Geofísica
De 10 a 14 de novembro de 2014
Universidade Federal do Pampa – Campus Caçapava do Sul

Certificado

Certificamos que o(a) aluno(a) RAFAEL LIMA DESSART participou do Ciclo de Palestras realizado durante a V Semana Acadêmica da Geofísica, promovida pela Universidade Federal do Pampa – Campus Caçapava do Sul no período de 10 a 14 de novembro de 2014.

Caçapava do Sul, 14 de novembro de 2014.

Prof. Dr. Maximilian Fries
Coordenador Geral do Evento

Prof. Dr. Moisés Raizera
Coordenador do Curso

Groundwater Management

ORGANIZED BY:



CERTIFICATE

We hereby certify that

RAFAEL LIMA DESSART

participated in the **1st Workshop: Groundwater Management**, promoted by **ABAS** – Brazilian Association of Groundwater, RS Chapter and **APSG** – Southern Brazilian Professional Association of Geologists, on October 3, 2003, at UNISINOS, in São Leopoldo – RS.

São Leopoldo, October 3, 2003.

-----// signature //-----

Cláudio P Oliveira
ABAS – RS Chapter
President

-----// signature //-----

Sergio Cardoso
APSG / RS
President

SUPPORT:



I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 11, 2025.

I Oficina

Gestão de Águas Subterrâneas

PROMOÇÃO:



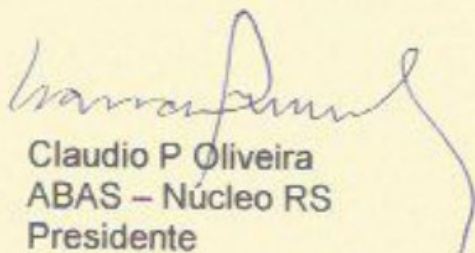
CERTIFICADO

Certificamos que

RAFAEL LIMA DESSART

participou da **I Oficina: Gestão de Águas Subterrâneas**, promovida pela **ABAS** – Associação Brasileira de Águas Subterrâneas Núcleo RS e pela **APSG** – Associação Profissional Sul Brasileira de Geólogos, na data de 03 de outubro de 2003, na UNISINOS em São Leopoldo-RS.

São Leopoldo, 03 de outubro de 2003


Claudio P. Oliveira
ABAS – Núcleo RS
Presidente


Sergio Cardoso
APSG / RS
Presidente

APOIO:



CREA-RS



Certificate

The Graduate Program in Geology at the Federal University of Paraná,
hereby certifies that

Rafael Lima Dessart

participated in the 20th Seminar of the Graduate Program in Geology at
UFPR, held from September 18 to 22, 2017, in the capacity of
presenter of the work:

*"Integration of geophysical and structural data in hydrogeological investigation in
the municipality of Bagé/RS."*

Curitiba, September 26, 2017

-----// signature //--

Prof. Dr. Francisco José Fonseca Ferreira
Organizing Committee

-----// signature //--

Prof. Dr. Luiz Alberto Fernandes
Organizing Committee

-----// signature //--

Prof. Dr. Maria Cristina de Souza
Coordinator of the Graduate Program in
Geology

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.

Certificado

O Programa de pós-graduação em Geologia da Universidade Federal do Paraná,
confere este certificado a

Rafael Lima Dessart

por sua participação no 20º Seminário do programa de pós-graduação em Geologia da
UFPR realizado entre os dias 18 e 22 de setembro de 2017 na qualidade de
apresentador do trabalho

*"Integração de dados geofísicos e estruturais na investigação hidrogeológica no
município de Bagé/RS".*

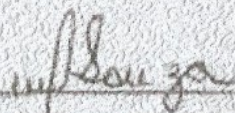
Curitiba, 26 de setembro de 2017



Prof. Dr. Francisco José Fonseca Ferreira
Comissão organizadora



Prof. Dr. Luiz Alberto Fernandes
Comissão organizadora



Prof.ª, Dr.ª Maria Cristina de Souza
Coordenadora do programa de pós-graduação em
Geologia



V Geophysics Academic Week
From November 10 to 14, 2014
Federal University of Pampa – Caçapava do Sul Campus

Certificate

We hereby certify that the student RAFAEL LIMA DESSART participated in the V Geophysics Academic Week, organized by the Federal University of Pampa – Caçapava do Sul Campus, from November 10 to 14, 2014. Total workload of the event: 40 hours.

Caçapava do Sul, November 14, 2014.

-----// signature //-----

Prof. Dr. Maximilian Fries
General Coordinator of the Event

-----// signature //-----

Prof. Dr. Moisés Raizera
Head of the Program

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 11, 2025.

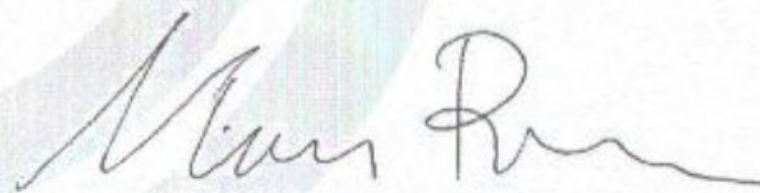
Certificado

Certificamos que o(a) aluno(a) RAFAEL LIMA DESSART participou da V Semana Acadêmica da Geofísica, realizada pela Universidade Federal do Pampa – Campus Caçapava do Sul no período de 10 a 14 de novembro de 2014. Carga horária do evento: 40 horas.

Caçapava do Sul, 14 de novembro de 2014.



Prof. Dr. Maximilian Fries
Coordenador Geral do Evento



Prof. Dr. Moisés Raizera
Coordenador do Curso de Geofísica



MINISTRY OF EDUCATION
FEDERAL UNIVERSITY OF PAMPA FOUNDATION
VICE-PRESIDENT'S OFFICE OF RESEARCH



Federal University of Pampa

CERTIFICATE

We hereby certify that Rafael Lima Dessart was part of the research team for the project entitled "Analyses of alkaline earth metals and other metals in water, soil, and atmosphere in the region of Caçapava do Sul," coordinated by CRISTIANE HEREDIA GOMES, and carried out from 04/01/2014, to 03/01/2016, with a weekly workload of 4 hours.

Bagé, February 14, 2017.

-----// signature //-----

Alessandro Gonçalves Girardi

Vice-President for Research, Graduate Studies, and Innovation

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.



MINISTÉRIO DA EDUCAÇÃO
FUNDAÇÃO UNIVERSIDADE FEDERAL DO PAMPA
PRÓ-REITORIA DE PESQUISA



CERTIFICADO

Certificamos que Rafael Lima Dessart participou da equipe executora do projeto de pesquisa intitulado "Análises de metais alcalinos terrosos e outros metais na água, no solo e na atmosfera na região de Caçapava do Sul", coordenado por CRISTIANE HEREDIA GOMES, desenvolvido no período de 01/04/2014 a 01/03/2016, perfazendo uma carga horária de 4 horas semanais.

Bagé, 14 de fevereiro de 2017.

Alessandro Gonçalves Girardi
Pró-Reitor de Pesquisa, Pós-Graduação e Inovação



UNIVERSITY OF VALE DO RIO DOS SINOS

Recognized by Ministerial Ordinance No. 453, dated 11/21/83, published in the Federal Official Gazette on 11/22/83

São Leopoldo – Rio Grande do Sul - Brazil

C E R T I F I C A T E

We hereby award **RAFAEL LIMA DESSART**
this certificate of RESEARCH ASSISTANT
under the Special Training Program – PET/CAPES
Faculty Advisor: Prof. Dr. Luiz Henrique Ronchi
Center: School of Exact and Technological Sciences
Group: PET/Geology
Period: September to December, 1998

284

São Leopoldo, July 17, 2002.

-----// signature //-----
Luiz Inácio Germany Gaiger
Director of Research

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

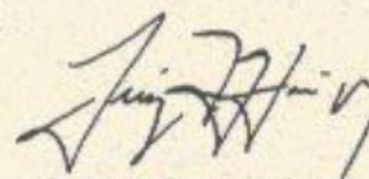
Date: July 11, 2025.

CERTIFICADO

Concedemos a **RAFAEL LIMA DESSART**
este certificado de **AUXILIAR DE PESQUISA**
junto ao Programa Especial de Treinamento – PET/CAPEs
Professor Tutor: Prof. Dr. Luiz Henrique Ronchi
Centro: Centro de Ciências Exatas e Tecnológicas
Grupo: PET/Geologia
Realização: Setembro a Dezembro de 1998

286

São Leopoldo, 17 de julho de 2002.



Luiz Inácio Germany Gaiger
Diretor de Pesquisa

C E R T I F I C A T E



GROUNDWATER: Assessment and Management Challenges

We hereby award **Rafael Lima Dessart** participated in the seminar “Groundwater: Assessment and Management Challenges”, held on October 15 and 16, 2002, in Porto Alegre, RS. The event was part of the program of the IX Inter-American and II State Water Week.

-----// signature //-----

Cláudio Langone
State Secretary of the Environment

-----// signature //-----

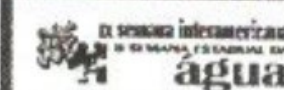
Paulo Ricardo Stein
President of the Southern Brazilian Professional Association of Geologists (ASPG)

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 11, 2025.

CERTIFICADO



SEMINÁRIO

ÁGUAS SUBTERRÂNEAS:

Diagnóstico e
desafios para gestão

Certificamos que Rafael Lima Dessart
participou do Seminário "Águas Subterrâneas: Diagnóstico e desafios
para gestão", nos dias 15 e 16 de outubro de 2002, realizado em
Porto Alegre/RS, integrante da programação da IX Semana Interamericana
e II Semana Estadual da Água.

Claudio Langone
Secretário Estadual do Meio Ambiente

Paulo Ricardo Steiri
Presidente da Associação Profissional Sul-Brasileira de Geólogos (ASPG)



STATE UNIVERSITY OF PONTA GROSSA
VICE-PRESIDENT'S OFFICE FOR EXTENSION AND CULTURAL AFFAIRS



C E R T I F I C A T E

We hereby certify, for all due purposes, that the work titled "GEOCONSERVATION AND THE TEACHING OF THE GEOLOGICAL HERITAGE OF THE SOUTHERN RIO GRANDE SHIELD THROUGH THE VIRTUAL GEOLOGICAL MUSEUM OF THE PAMPA", authored by Aline Silva Barbosa, Diogo Gabriel Sperandio, Natália Pinheiro Borges, Cristiane Heredia Gomes, and Rafael Lima Dessart, was presented by Aline Silva Barbosa in the Oral Presentation category during the extension event "IV BRAZILIAN SYMPOSIUM ON GEOLOGICAL HERITAGE AND II LUSO-BRAZILIAN MEETING ON GEOMORPHOLOGICAL HERITAGE AND GEOCONSERVATION", promoted by the State University of Ponta Grossa through the Department of Geosciences, held from October 9 to 14, 2017. Coordinated by Gilson Burigo Guimarães.

290

Pronta Grossa, December 9, 2017.

-----// signature //--

Prof. Marilisa do Rocio Oliveira
Vice-President of Extension and Cultural Affairs

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 11, 2025.



UNIVERSIDADE ESTADUAL DE PONTA GROSSA
PRÓ-REITORIA DE EXTENSÃO E ASSUNTOS CULTURAIS



CERTIDÃO

Certificamos para os devidos fins que o trabalho "GEOCONSERVAÇÃO E ENSINO DO PATRIMÔNIO GEOLÓGICO DO ESCUDO SUL-RIO-GRANDENSE ATRAVÉS DO MUSEU VIRTUAL GEOLÓGICO DO PAMPA", de autoria de Aline Silva Barbosa, Diogo Gabriel Sperandio, Natália Pinheiro Borges, Cristiane Heredia Gomes, Rafael Lima Dessart, foi apresentado por Aline Silva Barbosa, na categoria Oral, durante o evento de extensão "IV SIMPÓSIO BRASILEIRO DE PATRIMÔNIO GEOLÓGICO E II ENCONTRO LUSO-BRASILEIRO DE PATRIMÔNIO GEOMORFOLÓGICO E GEOCONSERVAÇÃO", em uma promoção da Universidade Estadual de Ponta Grossa através do(a) Departamento de Geociências, realizado no período de 09 a 14 de outubro de 2017. Coordenação de Gilson Burigo Guimarães.

292

Ponta Grossa, 09 de Dezembro de 2017.

Prof. Marilisa do Rocio Oliveira
Pró-Reitor de Extensão e Assuntos Culturais



UNIVERSITY OF VALE DO RIO DOS SINOS

Recognized by Ministerial Ordinance No. 453, dated 11/21/83, published in the Federal Official Gazette on 11/22/83

São Leopoldo – Rio Grande do Sul - Brazil

C E R T I F I C A T E

We hereby award **RAFAEL LIMA DESSART**

this certificate of RESEARCH ASSISTANT

under the Institutional Program for Scientific Initiation Scholarships/PIBIC/CNPq

in the project “Geometry, Architecture, and Heterogeneity of Sedimentary Bodies”

Coordinated by Prof. Dr. Paulo Sérgio Paim

Center: School of Exact and Technological Sciences

Period: September 1999 to July 2000

Duration: 880 hours

São Leopoldo, July 17, 2002.

-----// signature //-----

Luiz Inácio Germany Gaiger
Director of Research

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 11, 2025.

CERTIFICADO

Concedemos a **RAFAEL LIMA DESSART**
este certificado de AUXILIAR DE PESQUISA
junto ao Programa Institucional de Bolsa de Iniciação Científica/PIBIC/CNPq
no projeto "Geometria, arquitetura e heterogeneidade de corpos sedimentares"
Coordenado pelo Prof. Dr. Paulo Sérgio Paim
Centro: Centro de Ciências Exatas e Tecnológicas
Realização: Setembro de 1999 a Julho de 2000
Duração: 880 horas

São Leopoldo, 17 de julho de 2002.



Luiz Inácio Germany Gaiger
Diretor de Pesquisa



UNIVERSITY OF VALE DO RIO DOS SINOS

Recognized by Ministerial Ordinance No. 453, dated 11/21/83, published in the Federal Official Gazette on 11/22/83

São Leopoldo – Rio Grande do Sul - Brazil

C E R T I F I C A T E

We hereby award **RAFAEL LIMA DESSART**

this certificate of RESEARCH ASSISTANT

under the Scientific Initiation Scholarship Program of UNISINOS – UNIBIC

in the project “Geometry, Architecture, and Heterogeneity of Sedimentary Bodies”

Coordinated by Prof. Dr. Paulo Sérgio Paim

Center: School of Exact and Technological Sciences

Period: August 2000 to December 2001

Duration: 880 hours

São Leopoldo, August 2, 2002.

-----// signature //-----

Luiz Inácio Germany Gaiger
Director of Research

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

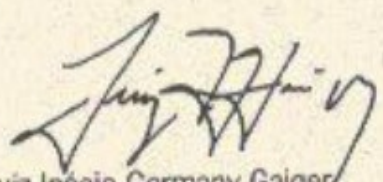
Raphael Michels Fantinato de Moura.

Date: July 11, 2025.

CERTIFICADO

Concedemos a **RAFAEL LIMA DESSART**
este certificado de **AUXILIAR DE PESQUISA**
junto ao Programa de Bolsa de Iniciação Científica da UNISINOS – UNIBIC
no projeto "Geometria, arquitetura e heterogeneidades de corpos sedimentares"
Coordenado pelo Prof. Dr. Paulo Sérgio Gomes Palm
Centro: Centro de Ciências Exatas e Tecnológicas
Realização: Agosto de 2000 a Dezembro de 2001
Duração: 880 horas

São Leopoldo, 02 de agosto de 2002.



Luiz Inácio Germany Gaiger
Diretor de Pesquisa

VII SIEPE

Salão Internacional de
Ensino, Pesquisa e Extensão



KNOWLEDGE THAT MOVES THE PAMPA

De 24 a 26 de novembro de 2015
na Unipampa campus Alegrete



The Scientific Committee of the VII International Conference on Teaching, Research, and Extension (SIEPE) hereby certifies that **Juliana Gimenes De Oliveira** presented the work entitled **PHYSICAL ANALYSIS OF SEDIMENTS DEPOSITED IN TWO WATER RESOURCES IN THE CITY OF CAÇAPAVA DO SUL**, authored by **Juliana Gimenes De Oliveira, Rafael Lima Dessart, Issacar Barroso, Juliana Gimenes De Oliveira, and Cristiane Heredia Gomes**, in the **Research** category, under the field of **Exact and Earth Sciences**, in the **Oral Presentation** format, at the Scientific Exhibition of the VII SIEPE, held from November 24 to 26, 2015, in Alegrete, RS.

Bagé, November 26, 2015.

-----// signature //-----

Ulrika Arns
President



Federal University of Pampa

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 11, 2025.

VII SIEPE

Salão Internacional de
Ensino, Pesquisa e Extensão



SABERES QUE MOVEM O PAMPA

De 24 a 26 de novembro de 2015
na Unipampa campus Alegrete



O Comitê Científico do VII Salão Internacional de Ensino, Pesquisa e Extensão (SIEPE) certifica que **Juliana Gimenes De Oliveira** apresentou o trabalho intitulado **ANÁLISE FÍSICA DE SEDIMENTOS DEPOSITADOS EM DOIS RECURSOS HÍDRICOS DA CIDADE DE CAÇAPAVA DO SUL**, de autoria de **Juliana Gimenes De Oliveira, Rafael Lima Dessart, Juliana Gimenes De Oliveira, Issacar Barroso, Cristiane Heredia Gomes** na categoria **Pesquisa**, na área **Ciências Exatas e da Terra**, modalidade **Apresentação Oral** na Mostra Científica do VII SIEPE, realizada entre os dias 24 e 26 de Novembro de 2015, em Alegrete, RS.

301

Bagé, 26 de Novembro de 2015.

Ulrika Arns
Reitora





UNIVERSITY OF VALE DO RIO DOS SINOS

Recognized by Ministerial Ordinance No. 453, dated 11/21/1983, published in the Federal Official Gazette on 11/22/1983
São Leopoldo, Rio Grande do Sul – Brazil

CERTIFICATE

We hereby award **RAFAEL LIMA DESSART** this certificate of Attendance in the course

Techniques and Procedures³⁰² for Working with Fossils

Scope: Southern Brazil

Organized by: University of Vale do Rio dos Sinos
School of Exact and Technological Sciences

Period: July 4 to 13, 2000

Duration: 48 hours

São Leopoldo, August 22, 2000.

-----// signature //-----
Haide Maria Hupffer
Director of Extension

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 10, 2025.



UNIVERSIDADE DO VALE DO RIO DOS SINOS

Reconhecida pela Portaria Ministerial n.º 453, de 21/11/1983, D.O.U. de 22/11/1983
São Leopoldo - Rio Grande do Sul - Brasil

CERTIFICADO

Concedemos a RAFAEL LIMA DESSART este certificado de Frequência no curso

304

Técnicas e Procedimentos para o Trabalho com Fósseis

Âmbito: Sulbrasileiro

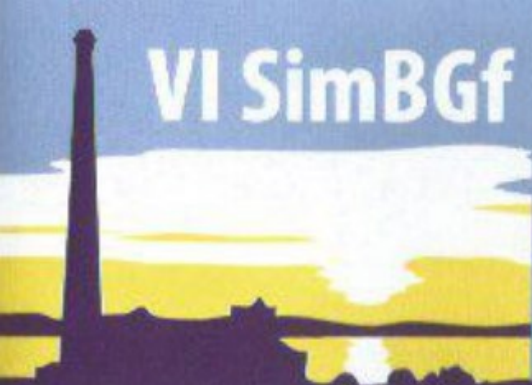
Promoção: Universidade do Vale do Rio dos Sinos
Centro de Ciências Exatas e Tecnológicas

Realização: 04 a 13/07/2000

Duração: 48 horas

São Leopoldo, 22 de agosto de 2000.

Haide Maria Hupfner
Diretora de Extensão



VI SimBGf

Organized by



VI Brazilian Symposium on Geophysics

Porto Alegre, October 14 to 16, 2014
Plaza São Rafael Hotel

CERTIFICATE

We hereby certify that RAFAEL LIMA DESSART participated in the pre-Symposium course APPLIED GEOPHYSICS FOR MINERAL EXPLORATION, taught by Prof. Adalene Silva, held during the VI Brazilian Symposium on Geophysics.

Porto Alegre, October 14, 2014.

Workload: 7 hours

-----// signature //--

Francisco Carlos Neves de Aquino
President SBGf

-----// signature //--

Silvia Beatriz Alves Rolim
Coordinator, Technical Committee

-----// signature //--

Neri João Boz
Coordinator, VI SimBGf

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.



CERTIFICADO

Certificamos que RAFAEL LIMA DESSART participou do curso pré-Simpósio GEOFÍSICA APLICADA À EXPLORAÇÃO MINERAL ministrado pela Prof.^a Adalene Silva, realizado durante VI Simpósio Brasileiro de Geofísica.

Porto Alegre, 14 de outubro de 2014.

Carga horária: 7 h

Francisco Carlos Neves de Aquino
Presidente SBGf

Silvia Beatriz Alves Rolim
Coordenadora Comitê Técnico

Neri João Boz
Coordenador VI SimBGf



UNIVERSITY OF VALE DO RIO DOS SINOS

Recognized by Ministerial Ordinance No. 453, dated 11/21/1983, published in the Federal Official Gazette on 11/22/1983
São Leopoldo, Rio Grande do Sul – Brazil

CERTIFICATE

We hereby award **RAFAEL LIMA DESSART** this certificate for serving as WORKSHOP COORDINATOR during the

VII Academic Meeting of Biology - RABU

Organized by: University of Vale do Rio dos Sinos
School of Health Sciences
Free Academic Center of Biology

Support: CRBio3 – Regional Biology Council – 3rd Region
Banco Real
Cantina Lanches

Period: November 8 to 12, 1999

Duration: 20 hours

São Leopoldo, January 10, 2000.

-----// signature //-----
Haide Maria Hupffer
Director of Extension

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.



UNIVERSIDADE DO VALE DO RIO DOS SINOS
Reconhecida pela Portaria Ministerial n.º 453, de 21/11/1983, D.O.U. de 22/11/1983
São Leopoldo - Rio Grande do Sul - Brasil

CERTIFICADO

Concedemos a **RAFAEL LIMA DESSART** este certificado de COORDENADOR DE OFICINA na

VII Reunião Acadêmica³¹⁰ da Biologia - RABU

Promoção: Universidade do Vale do Rio dos Sinos
Centro de Ciências da Saúde
Centro Acadêmico Livre da Biologia

Apoio: CRBio3- Conselho Regional de Biologia – 3ª Região
Banco Real
Cantina Lanches

Realização: 08 a 12/11/1999

Duração: 20 horas

São Leopoldo, 10 de janeiro de 2000.

Haide Mara Hupfler
Diretora de Extensão

VII SIEPE

Salão Internacional de
Ensino, Pesquisa e Extensão



KNOWLEDGE THAT MOVES THE PAMPA

De 24 a 26 de novembro de 2015
na Unipampa campus Alegrete



The Scientific Committee of the VII International Conference on Teaching, Research, and Extension (SIEPE) hereby certifies that **Douglas Eustáquio Beraldo** presented the work entitled **THE ELECTRICAL RESISTIVITY GEOPHYSICAL METHOD AS A TOOL FOR STRUCTURAL ANALYSIS**, authored by **Douglas Eustáquio Beraldo, Cristiane Heredia Gomes, and Rafael Lima Dessart**, in the **Research** category, under the field of **Exact and Earth Sciences**, in the **Poster Presentation** format, at the Scientific Exhibition of the VII SIEPE, held from November 24 to 26, 2015, in Alegrete, RS.

311

Bagé, November 26, 2015.

-----// signature //-----

Ulrika Arns
President



Federal University of Pampa

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.

VII SIEPE

Salão Internacional de
Ensino, Pesquisa e Extensão



SABERES QUE MOVEM O PAMPA

De 24 a 26 de novembro de 2015
na Unipampa campus Alegrete



O Comitê Científico do VII Salão Internacional de Ensino, Pesquisa e Extensão (SIEPE) certifica que **Douglas Eustáquio Beraldo** apresentou o trabalho intitulado **MÉTODO GEOFÍSICO ELETORRESISTIVO COMO FERRAMENTA DE ANÁLISE ESTRUTURAL**, de autoria de **Douglas Eustáquio Beraldo, Cristiane Heredia Gomes, Douglas Eustáquio Beraldo, Rafael Lima Dessart** na categoria **Pesquisa**, na área **Ciências Exatas e da Terra**, modalidade **Apresentação em Pôster** na Mostra Científica do VII SIEPE, realizada entre os dias 24 e 26 de Novembro de 2015, em Alegrete, RS.

313

Bagé, 26 de Novembro de 2015.

Ulrika Arns
Reitora



VII SIEPE

Salão Internacional de
Ensino, Pesquisa e Extensão



KNOWLEDGE THAT MOVES THE PAMPA

De 24 a 26 de novembro de 2015
na Unipampa campus Alegre



We hereby certify that Rafael Lima Dessart participated as a reviewer of abstracts submitted to the Scientific Exhibition of the VII International Conference on Teaching, Research, and Extension (SIEPE).

Bagé, November 26, 2015.

314

-----// signature //-----

Ulrika Arns
President



Federal University of Pampa

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.

VII SIEPE

Salão Internacional de
Ensino, Pesquisa e Extensão



SABERES QUE MOVEM O PAMPA

De 24 a 26 de novembro de 2015
na Unipampa campus Alegrete



Certificamos que Rafael Lima Dessart participou como avaliador de resumos submetidos para a Mostra Científica do VII Salão Internacional de Ensino, Pesquisa e Extensão (SIEPE).

Bagé, 26 de Novembro de 2015.

316

Ulrika Arns
Reitora



Universidade Federal do Pampa



UNIVERSITY OF VALE DO RIO DOS SINOS

Recognized by Ministerial Ordinance No. 453, dated 11/21/1983, published in the Federal Official Gazette on 11/22/1983
São Leopoldo, Rio Grande do Sul – Brazil

CERTIFICATE

We hereby award **RAFAEL LIMA DESSART** this certificate of participation in the

VIII Academic Meeting of Biology at UNISINOS - RABU

317

having participated in the activities: MC005, OF005, and RA001

Scope: Regional

Organized by: University of Vale do Rio dos Sinos
School of Health Sciences
Biology Program Coordination
Free Academic Center of Biology

Period: October 29 to November 1, 2001

Duration: 40 hours

São Leopoldo, November 1, 2001.

-----// signature //-----

Cornelia Hulda Volkart
Head of the School of Health Sciences

-----// signature //-----

Haide Maria Hupffer
Director of Extension

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.



UNIVERSIDADE DO VALE DO RIO DOS SINOS
Reconhecida pela Portaria Ministerial n.º 453, de 21/11/1983, D.O.U. de 22/11/1983
São Leopoldo - Rio Grande do Sul - Brasil

CERTIFICADO

Concedemos a RAFAEL LIMA DESSART este certificado de Participação na

VIII Reunião Acadêmica da Biologia da UNISINOS - RABU

tendo participado das atividades: MC005, OF005 e RA001

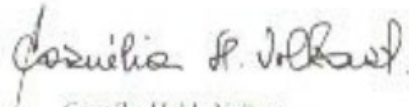
Âmbito: Regional

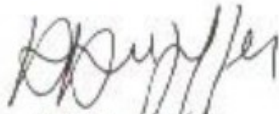
Promoção: Universidade do Vale do Rio dos Sinos
Centro de Ciências da Saúde
Coordenação do Curso de Biologia
Centro Acadêmico Livre da Biologia

Realização: 29/10 a 01/11/2001

Duração: 40 horas

São Leopoldo, 01 de novembro de 2001.


Cornélio Hilda Volckart
Diretora do Centro de Ciências da Saúde


Hilde Maria Hüpfner
Diretora de Extensão



INNOVATE, TRANSFORM,
RENEW THE WORLD

November 22 to 24, 2016
at Unipampa Uruguiana campus

CERTIFICATE

We hereby certify that Rafael Lima Dessart participated as a reviewer of abstracts submitted to the Scientific Exhibition of the 8th International Conference on Teaching, Research, and Extension (SIEPE).

Uruguiana, November 25, 2016.

-----// signature //-----

Marco Antonio Fontoura Hansen
President

the authenticity of this document can be verified at:
<https://eventos.unipampa.edu.br/certificados/validar/3193F2DB>

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.



CERTIFICADO

Certificamos que Rafael Lima Dessart participou como avaliador de resumos submetidos para a Mostra Científica do 8º Salão Internacional de Ensino, Pesquisa e Extensão (SIEPE).

322

Uruguaiana, 25 de Novembro de 2016.


Marco Antonio Fontoura Hansen
Reitor



X Congress of ABEQUA

Brazilian Association for Quaternary Studies
Guarapari (ES) – October 9–16, 2005

What is the key to the future?

CERTIFICATE



We hereby certify that

Rafael Lima Dessart

*participated in the x Brazilian Congress of ABEQUA –
Brazilian Association for Quaternary Studies,
held from October 9 to 16, 2005, in Guarapari – ES.*

Guarapari, October 16, 2005.

-----// signature //-----

Celia Regina de Gouveia Souza
President of ABEQUA

-----// signature //-----

Claudio Limeira Mello
Organizing Committee

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.



X CONGRESSO DA ABEQUA
Associação Brasileira de Estudos do Quaternário
Guarapari (ES) - 9 a 16 de outubro de 2005
Qual a chave para o futuro?

CERTIFICADO



Certificamos que

Rafael Lima Dessart

*participou do X Congresso Brasileiro da ABEQUA –
Associação Brasileira de Estudos do Quaternário
realizado de 9 a 16 de outubro de 2005, em Guarapari – ES.*

Guarapari, 16 de outubro de 2005.

Celia Regina de Gouveia Souza
Presidente ABEQUA

Claudio Limeira Mello
Comissão Organizadora



10th SIEPE

INTERNATIONAL CONFERENCE ON
TEACHING, RESEARCH, AND EXTENSION

and International Forum of
Educational Institutions of the Pampa

y Foro Internacional de
Instituciones de Enseñanza del Pampa

*A decade of
collaboration for
knowledge
without borders*

November 6 to 8, 2018
Peace Border
Sant'Ana do Livramento (Brazil)
Rivera (Uruguay)

*Una década
colaborando para el
conocimiento
sin fronteras*

6 al 8 de noviembre de 2018
Frontera de la Paz
Sant'Ana do Livramento (Brasil)
Rivera (Uruguay)

Certificate

We hereby certify that **Rafael Lima Dessart** participated as a reviewer of abstracts submitted to the Scientific Exhibition of the 10th International Conference on Teaching, Research, and Extension (SIEPE). The activities were held between September 17 and 27, 2018.

Santana do Livramento, October 9, 2018.

-----// signature //-----

Marco Antonio Fontoura Hansen

the authenticity of this document can be verified at:
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I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.



10º SIEPE

SALÃO INTERNACIONAL DE
ENSINO, PESQUISA E EXTENSÃO

e Fórum Internacional de
Instituições de Ensino do Pampa

y Foro Internacional de
Instituciones de Enseñanza del Pampa

*Uma década
colaborando para o
conhecimento
sem fronteiras*

6 a 8 de novembro de 2018

Fronteira da Paz

Sant'Ana do Livramento (Brasil)

Rivera (Uruguay)

*Una década
colaborando para el
conocimiento
sin fronteras*

6 al 8 de noviembre de 2018

Frontera de la Paz

Sant'Ana do Livramento (Brasil)

Rivera (Uruguay)

Certificado

Certificamos que **Rafael Lima Dessart** participou como avaliador de resumos submetidos para a Mostra Científica do 10º Salão Internacional de Ensino, Pesquisa e Extensão (SIEPE). As atividades foram realizadas entre os dias 17 e 27 de setembro de 2018.

Santana do Livramento, 09 de outubro de 2018.

Marco Antonio Fontoura Hansen

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10th SIEPE

INTERNATIONAL CONFERENCE ON
TEACHING, RESEARCH, AND EXTENSION

and International Forum of
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conocimiento
sin fronteras*

6 al 8 de noviembre de 2018
Frontera de la Paz
Sant'Ana do Livramento (Brasil)
Rivera (Uruguay)

Certificate

The Scientific Committee of the 10th International Conference on Teaching, Research, and Extension (SIEPE) hereby certifies that the work entitled **GEOSCIENCES AND EXTENSION: CONNECTING COMMUNITY AND UNIVERSITY**, authored by **Aline Silva Barbosa, Rafael Lima Dessart, Cristiane Heredia Gomes, Natália Pinheiro Borges, and Diogo Gabriel Sperandio**, in the category Scientific Initiation – Extension, presented in the Oral Presentation format, was presented at the Scientific Exhibition of the 10th International Conference on Teaching, Research, and Extension (SIEPE), held from November 6 to 8, 2018, in Santana do Livramento, RS.

Santana do Livramento, November 8, 2018.



Federal University of Pampa

-----// signature //-----

Marco Antonio Fontoura Hansen
President

the authenticity of this document can be verified at:
<https://eventos.unipampa.edu.br/certificados/validar/3C06ECB8>

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.



10º SIEPE

SALÃO INTERNACIONAL DE
ENSINO, PESQUISA E EXTENSÃO

e Fórum Internacional de
Instituições de Ensino do Pampa

y Foro Internacional de
Instituciones de Enseñanza del Pampa

*Uma década
colaborando para o
conhecimento
sem fronteiras*

6 a 8 de novembro de 2018

Fronteira da Paz
Sant'Ana do Livramento (Brasil)
Rivera (Uruguay)

*Una década
colaborando para el
conocimiento
sin fronteras*

6 al 8 de noviembre de 2018

Frontera de la Paz
Sant'Ana do Livramento (Brasil)
Rivera (Uruguay)

Certificado

A Comissão Científica do 10º Salão Internacional de Ensino, Pesquisa e Extensão (SIEPE) certifica que o trabalho intitulado **AS GEOCIÊNCIAS E A EXTENSÃO: ALINHANDO COMUNIDADE E UNIVERSIDADE** de autoria de **Aline Silva Barbosa, Rafael Lima Dessart, Cristiane Heredia Gomes, Natália Pinheiro Borges, Diogo Gabriel Sperandio** na categoria Iniciação Científica - Extensão, na modalidade Apresentação Oral foi apresentado na Mostra Científica do 10º Salão Internacional de Ensino, Pesquisa e Extensão (SIEPE), realizado entre os dias 06 e 08 de novembro de 2018, em Santana do Livramento, RS.

Santana do Livramento, 08 de novembro de 2018.



Universidade Federal do Pampa

Marco Antonio Fontoura Hansen

Reitor

a autenticidade deste documento pode ser verificada através da URL:
<https://eventos.unipampa.edu.br/certificados/validar/3C06ECB8>

CERTIFICATE

We hereby certify that the work entitled:

“THE USE OF REMOTE SENSING TO DETECT AND MONITOR MEANDER MIGRATION IN THE MAMORECILLO RIVER, BOLIVIA, BETWEEN 1985 AND 2012”

authored by

Borges, N.P.; Sperandio, D.G.; Gomes, C.H.; Dessart, R.L.,

was presented by

Natália Pinheiro Borges

at the X SOUTHERN BRAZILIAN SYMPOSIUM ON GEOLOGY, Oral Session.

Curitiba, June 8, 2017.

-----// signature //-----

President of the
X Southern Brazilian Symposium
on Geology

-----// signature //-----

President of the
Brazilian Geological Society
Paraná Chapter

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.

CERTIFICADO

Certificamos que o trabalho intitulado:

“O USO DE SENSORIAMENTO REMOTO PARA DETECTAR E MONITORAR A MIGRAÇÃO DE MEANDROS NO RIO MAMORECILLO, BOLIVIA, ENTRE 1985 E 2012”

de autoria de

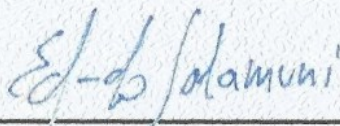
Borges, N.P.; Sperandio, D.G.; Gomes, C.H.; Dessart, R.L.

foi apresentado por

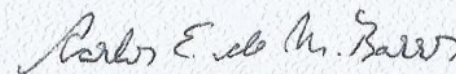
Natália Pinheiro Borges

no X SIMPÓSIO SUL-BRASILEIRO DE GEOLOGIA, Sessão Oral.

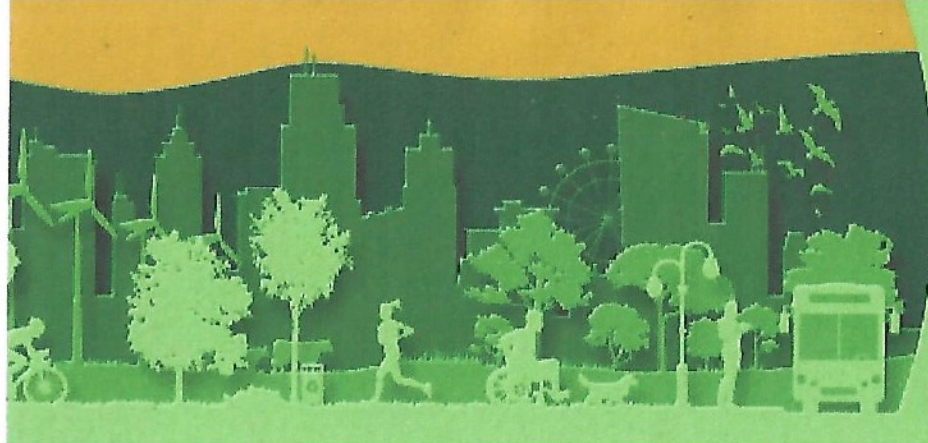
Curitiba, 08 de junho de 2017.



Presidente do
X Simpósio Sul-Brasileiro
de Geologia



Presidente da
Sociedade Brasileira de Geologia
Núcleo Paraná



11th SIEPE
SALÃO INTERNACIONAL DE
ENSINO, PESQUISA E EXTENSÃO

**EDUCATION AND
SCIENCE FOR
SUSTAINABLE
DEVELOPMENT**

**October
22 to 24, 2019**

Peacer Border
Sant'Ana do Livramento (Brazil)
Rivera (Uruguay)

**EDUCACIÓN Y
CIENCIA PARA EL
DESARROLLO
SOSTENIBLE**

**22 al 24 de
octubre de 2019**

Frontera de la Paz
Sant'Ana do Livramento (Brasil)
Rivera (Uruguay)

CERTIFICATE

We hereby certify that **Rafael Lima Dessart** participated³³ as a reviewer of abstracts for the Scientific Exhibition of the 11th International Conference on Teaching, Research, and Extension - SIEPE.

Santana do Livramento, October 24, 2019.

-----// signature //--

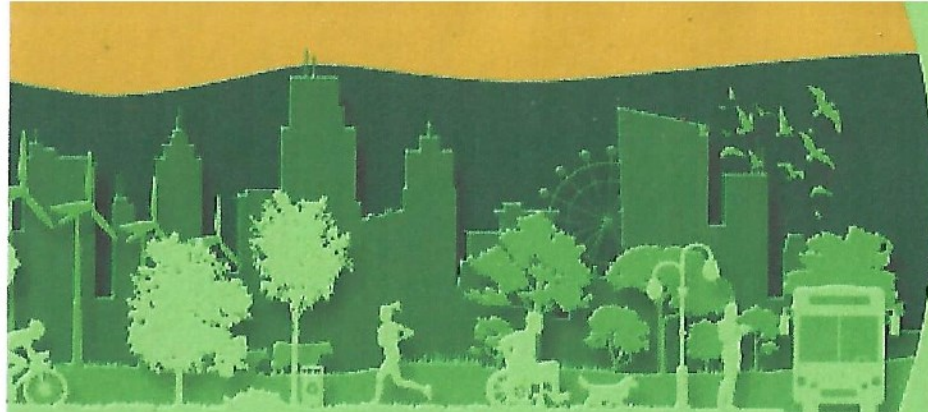
Marco Antonio Fontoura Hansen
President of the Federal University of Pampa

the authenticity of this document can be verified at:
<https://sgce.unipampa.edu.br/certificados/validar/DFA5782C>

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Raphael Michels Fantinato de Moura.

Date: July 12, 2025.



11º SIEPE
SALÃO INTERNACIONAL DE
ENSINO, PESQUISA E EXTENSÃO

**EDUCAÇÃO E
CIÊNCIA PARA O
DESENVOLVIMENTO
SUSTENTÁVEL**

**22 a 24 de
outubro de 2019**

Frenteira da Paz
Sant'Ana do Livramento (Brasil)
Rivers (Uruguay)

**EDUCACIÓN Y
CIENCIA PARA EL
DESARROLLO
SOSTENIBLE**

**22 al 24 de
octubre de 2019**

Frontera de la Paz
Sant'Ana do Livramento (Brasil)
Rivers (Uruguay)

CERTIFICADO

Certificamos que **Rafael Lima Dessart** participou como avaliador de resumos da Mostra Científica do 11º Salão Internacional de Ensino, Pesquisa e Extensão -SIEPE.

Santana do Livramento, 24 de outubro de 2019.


Marco Antonio Fontoura Hansen
Reitor da Universidade Federal do Pampa

a autenticidade deste documento pode ser verificada através da URL
<https://sgce.unipampa.edu.br/certificados/validar/DFA5782C>

Federal University of Rio Grande Foundation

Organizing Committee of the XIV National Week of Oceanography

We hereby certify that

Rafael Lima Dessart

participated in the XIV³³⁸ National Week of Oceanography,

“Oceanography and Society: a challenge to theory and practice”,

held from October 7 to 13, 2001, in Rio Grande, RS, Brazil.

-----// signature //-----

Prof. Paulo C. Abreu

Coordinator of the XIVSNO

-----// signature //-----

Prof. João P. Vieira

Superintendent of Research

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.

XIV SEMANA NACIONAL DE OCEANOGRAFIA

Oceanografia e Sociedade: um desafio à teoria e à prática

Fundação Universidade Federal Do Rio Grande

Comissão Organizadora da XIV Semana Nacional de Oceanografia

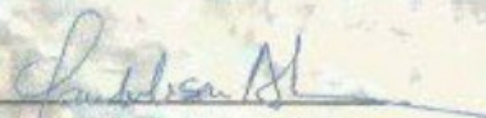
Certificamos que

Rafael Lima Dessart

Participou da XIV Semana Nacional de Oceanografia

"Oceanografia e Sociedade: um desafio à teoria e à prática".

Realizada de 07 a 13 de outubro de 2001, em Rio Grande, RS, Brasil.



*Prof. Paulo C. Abreu
Coordenador da XIVSNO*



*Prof. João P. Vieira
Superintendente de Pesquisa*



XL BRAZILIAN
CONGRESS OF
GEOLOGY

EXPOGEO 98
BRAZILIAN
GEOLOGY
EXHIBITION

Certificate

We hereby certify that RAFAEL LIMA DESSART
participated in the XL BRAZILIAN CONGRESS OF GEOLOGY,
held from October 11 to 16, 1998, at Minascentro, in Belo Horizonte,
Minas Gerais, Brazil, in the capacity of Congress Participant.

Belo Horizonte, October 16, 1998

-----// signature //-----

Osvaldo Castanheira
President

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 12, 2025.



XL CONGRESSO
BRASILEIRO DE
GEOLOGIA

EXPOGEO 98
EXPOSIÇÃO
BRASILEIRA DE
GEOLOGIA

Certificado

Certificamos que RAFAEL LIMA DESSART
participou do XL CONGRESSO BRASILEIRO DE GEOLOGIA,
realizado durante o período de 11 a 16 de outubro de 1998, no
Minascentro, em Belo Horizonte, Minas Gerais, na qualidade de
Congressista.

Belo Horizonte, 16 de outubro de 1998

Osvaldo Castanheira
Presidente



national service for commercial training regional department in rio grande do sul

SENAC COMPUTER TRAINING CENTER

CERTIFICATE

We hereby certify that RAFAEL LIMA DESSART
completed the course INTRODUCTION TO MICROINFORMATICS

held from 07/18/94 **to** 07/22/94, **in** PORTO ALEGRE
with a total duration of 15 hours.

COURSE SYLLABUS

- INTRODUCTION TO MICROINFORMATICS
- PROFESSIONALS
- SOFTWARE
- DATA PROCESSING
 - DEFINITION
 - TYPES
 - EQUIPMENT

344

Grade : Pass with Distinction

Attendance : 100%

registration no.: 282945

PORTO ALEGRE, JULY 29, 1994.

-----// signature //-----

GILDA BETTONI ZIMERMANN

Director

-----// signature //-----

Participant



national service for commercial training regional department in rio grande do sul

SENAC COMPUTER TRAINING CENTER

CERTIFICATE

We hereby certify that RAFAEL LIMA DESSART
completed the course PC MICROCOMPUTER OPERATOR

held from 09/01/94 **to** 09/22/94, **in** PORTO ALEGRE
with a total duration of 45 hours.

COURSE SYLLABUS

- OPERATING SYSTEM: MS-DOS
- INSTALLATION
- UTILITIES
- CONFIGURATION AND MANAGEMENT OF PERIPHERALS
- TREE-STRUCTURED DIRECTORIES
- EDIT - TEXT EDITOR

345

Grade : Pass with Distinction

Attendance : 87%

registration no.: 315246

PORTO ALEGRE, SEPTEMBER 29, 1994.

-----// signature //-----

GILDA BETTONI ZIMERMANN

Director

-----// signature //-----

Participant



national service for commercial training regional department in rio grande do sul

SENAC COMPUTER TRAINING CENTER

CERTIFICATE

We hereby certify that RAFAEL LIMA DESSART
completed the course WINDOWS

held from 10/10/94 **to** 10/14/94, **in** PORTO ALEGRE
with a total duration of 9 hours.

COURSE SYLLABUS

- BASIC NOTIONS ABOUT: WINDOWS AND APPLICATIONS
- PROGRAM AND FILE MANAGER
- CONTROL PANEL
- PRINT MANAGER
- NON-WINDOWS APPLICATIONS
- PIF EDITOR

346

Grade : Pass with Distinction

Attendance : 100%

registration no.: 333948

PORTO ALEGRE, OCTOBER 19, 1994.

-----// signature //-----

GILDA BETTONI ZIMERMANN

Director

-----// signature //-----

Participant



national service for commercial training regional department in rio grande do sul

SENAC COMPUTER TRAINING CENTER

CERTIFICATE

We hereby certify that RAFAEL LIMA DESSART
completed the course WORD FOR WINDOWS

held from 12/20/94 **to** 01/04/95, **in** PORTO ALEGRE
with a total duration of 30 hours.

COURSE SYLLABUS

- WORD – INTRODUCTION
- OPENING
- SAVING
- CLOSING
- SORTING AND
- PRINTING DOCUMENTS
- MOVING AND COPYING TEXT
- CHARACTER AND PARAGRAPH FORMATTING
- FIND AND REPLACE TEXT OR PARAGRAPHS
- SPELL CHECK
- GLOSSARIES
- TIPS FOR CREATING VISUALLY APPEALING DOCUMENTS

347

Grade : Pass with Distinction

Attendance : 80%

registration no.: 352068

PORTO ALEGRE, JANUARY 9, 1995.

-----// signature //-----

GILDA BETTONI ZIMERMANN

Director

-----// signature //-----

Participant



national service for commercial training regional department in rio grande do sul

SENAC COMPUTER TRAINING CENTER

CERTIFICATE

We hereby certify that RAFAEL LIMA DESSART
completed the course EXCEL

held from 06/19/95 **to** 06/30/95, **in** PORTO ALEGRE
with a total duration of 30 hours.

COURSE SYLLABUS

- EXCEL – INTRODUCTION
- CREATING, EDITING, AND FORMATTING SPREADSHEETS
- CREATING CHARTS
- EXCEL FUNCTIONS
- PRINTING DOCUMENTS

Grade : Pass with Distinction

Attendance : 90%

registration no.: 420184

PORTO ALEGRE, JULY 12, 1995.

-----// signature //--

GILDA BETTONI ZIMERMANN

Director

-----// signature //--

Participant

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 17, 2025.



serviço nacional de aprendizagem comercial
departamento regional no rio grande do sul

GFP SENAC DE INFORMATICA

CERTIFICADO

Certificamos que **RAFAEL LIMA DESSART**
concluiu **MICROINFORMATICA INICIACAO A AREA**

realizado de 18/07/94 a 22/07/94 , em PORTO ALEGRE
com duração de 15 horas.

CURRÍCULO

- INTRODUCAO A MICROINFORMATICA
- PROFISSIONAIS
- SOFTWARES
- PROCESSAMENTO DE DADOS
 - . DEFINICAO
 - . TIPOS
 - . EQUIPAMENTOS

350

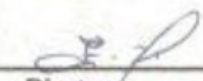
Conceito : PS

Frequencia: 100 %

registro nº 282945

PORTO ALEGRE , 29 de JULHO

de 1994


GILDA BETTONT ZIMERMANN

Diretor


Concluente



serviço nacional de aprendizagem comercial
departamento regional no rio grande do sul

CFP SENAC DE INFORMATICA

CERTIFICADO

Certificamos que **RAFAEL LIMA DESSART**
concluiu - **OPERADOR DE MICROCOMPUTADORES PC**
realizado de **01/09/94** a **22/09/94** , em **PORTO ALEGRE**
com duração de **45** horas.

CURRÍCULO

- SISTEMA OPERACIONAL MS/DOS
 - INSTALACAO
 - UTILITARIOS
 - CONFIGURACAO E MANIPULACAO DE PERIFERICOS
 - DIRETORIOS ESTRUTURADOS EM ARVORES
 - EDIT - EDITOR DE TEXTO

351

Conceito : PS

Frequencia: 87 %

registro nº **315246**

PORTO ALEGRE , 29 de SETEMBRO de 1994



Diretor
GILDA BETTINI ZIMERMANN



Concluente



serviço nacional de aprendizagem comercial
departamento regional no rio grande do sul

CFP SENAC DE INFORMATICA

CERTIFICADO

Certificamos que **RAFAEL LIMA DESSERT**
concluiu -- **WINDOWS**

realizado de 10/10/94 a 14/10/94 em **PORTO ALEGRE**
com duração de 5 horas.

CURRÍCULO

- NOCOES BASICAS SOBRE: Windows e Aplicativos
- GERENCIADOR DE PROGRAMAS e ARQUIVOS
- PAINEL DE CONTROLE
- GERENCIADOR DE IMPRESSAO
- APLICATIVOS NA0 WINDOWS
- EDITOR PIF

Conceito : PS

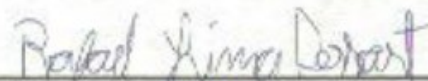
Frequencia: 100 %

registro nº 333948

PORTO ALEGRE , 19 de OUTUBRO de 1994



GILDA BETTONT ZIMERMANN



Concluinte



serviço nacional de aprendizagem comercial
departamento regional no rio grande do sul

CFP SENAC DE INFORMATICA

CERTIFICADO

Certificamos que **RAFAEL LIMA DESSART**
concluiu -- **WORD FOR WINDOWS**
realizado de 20/12/94 a 04/01/95, em **PORTO ALEGRE**
com duração de 30 horas.

CURRÍCULO

- APRESENTACAO DO WORD
 - .ABRINDO
 - .SALVANDO
 - .FECHANDO
 - .CLASSIFICANDO E
 - .IMPRIMINDO DOCUMENTOS
- MOVENDO E COPIANDO TEXTOS
- FORMATAÇÃO DE CARACTERES E PARAGRAFOS
- LOCALIZAR E SUBSTITUIR TEXTOS DO PARAGRAFOS
- VERIFICANDO A ORTOGRAFIA DE TEXTOS
- GLOSSARIOS
- DICAS PARA A CRIAÇÃO DE DOCUMENTOS ATRATIVOS

Conceito : PS

Frequencia: 80 %

registro nº **352068**

PORTO ALEGRE , 09 de JANEIRO de 1995

Diretor

GILDA BETTONI ZIMMERMANN

Concluente



senac

serviço nacional de aprendizagem comercial
departamento regional no rio grande do sul

CFP SENAC DE INFORMATICA

CERTIFICADO

Certificamos que **RAFAEL LIMA DESSART**
concluiu -- EXCEL --
realizado de 19/06/95 a 30/06/95, em PORTO ALEGRE
com duração de 30 horas.

CURRÍCULO

- INTRODUÇÃO AO EXCEL
- CRIANDO, EDITANDO E FORMATANDO PLANILHA
- CRIAÇÃO DE GRÁFICOS
- FUNÇÕES DO EXCEL
- IMPRESSÃO DE DOCUMENTOS

354

Conceito : PS

Frequência: 90 %

registro nº 420184

PORTO ALEGRE, 12 de JULHO

de 1995

Diretor

GILDA BETTONI ZIMERMANN

Concluente

1st Mineral

Exploration Workshop

UNIPAMPA – Caçapava do Sul Campus

CERTIFICATE

We hereby certify that
RAFAEL LIMA DESSART

Participated as an attendee in the 1st Mineral Exploration Workshop, organized by the Federal University of Pampa (UNIPAMPA), Caçapava do Sul – RS, in collaboration with the Applied Geophysics Laboratory, with a total duration of 20 hours, from August 28 to 29, 2017.

Caçapava do Sul, September 18, 2017

-----// signature //-----

Workshop Coordinator

Maximilian Fries



Translation: Applied Geophysics Laboratory



Southern Regional
Division

1st Mineral

Exploration Workshop

UNIPAMPA – Caçapava do Sul Campus

CERTIFICATE

We hereby certify that
RAFAEL LIMA DESSART

Participated in the short course "**Gamma-ray Spectrometry: Concepts and Applications in Mineral Exploration**", delivered by *Dr. Francisco José Fonseca Ferreira*, with a total duration of 5 hours, held during the 1st Mineral Exploration Workshop, organized by the Federal University of Pampa (UNIPAMPA), Caçapava do Sul – RS, in collaboration with the Applied Geophysics Laboratory, August 28 to 29, 2017.

Caçapava do Sul, September 18, 2017

-----// signature //-----

Workshop Coordinator

Maximilian Fries



Translation: Applied Geophysics Laboratory



Southern Regional
Division

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 17, 2025.



1º Workshop Exploração Mineral

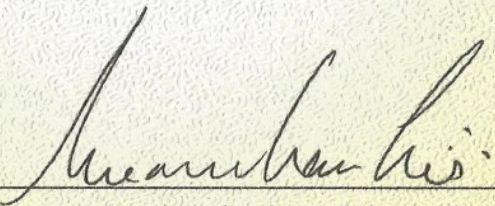
UNIPAMPA - Campus Caçapava do Sul

CERTIFICADO

Certificamos que
RAFAEL LIMA DESSART

Participou como ouvinte do 1º Workshop de Exploração Mineral, promovido pela Universidade Federal do Pampa (UNIPAMPA), Caçapava do Sul - RS, junto com o Laboratório de Geofísica Aplicada, com duração de 20h, no período de 28 a 29 de agosto de 2017.

Caçapava do Sul, 18 de setembro de 2017



Coordenador do Workshop
Maximilian Fries

LABORATÓRIO DE
GEOFÍSICA
APLICADA



Regional Sul



1º Workshop Exploração Mineral

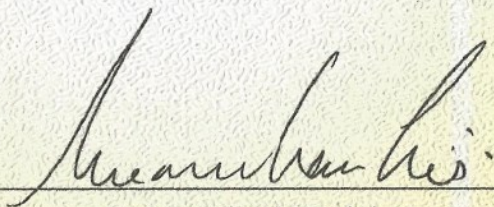
UNIPAMPA - Campus Caçapava do Sul

CERTIFICADO

Certificamos que
RAFAEL LIMA DESSART

Participou do minicurso “**Gamaespectrometria: Conceitos e aplicações na exploração mineral**” de autoria do *Dr. Francisco José Fonseca Ferreira*, com duração de 5h, ministrado durante o 1º Workshop de Exploração Mineral, promovido pela Universidade Federal do Pampa (UNIPAMPA), Caçapava do Sul -RS, junto com o Laboratório de Geofísica Aplicada, no período de 28 a 29 de agosto de 2017.

Caçapava do Sul, 18 de setembro de 2017



Coordenador do Workshop
Maximilian Fries

LABORATÓRIO DE
GEOFÍSICA
APLICADA



Regional Sul



We hereby certify that the work

**ANALYSIS OF NITRATE CONCENTRATIONS IN SURFACE AND GROUNDWATER IN A MINING AREA IN
CAÇAPAVA DO SUL – RS**

authored by

Junges, K.; Gomes, C.H.; Sperandio, D.G.; Dessart, R.L.; Borges, N.P.; Barbosa, A.S.

was presented at the **XVI Brazilian Congress of Geochemistry - XVI CBGeoq 2017**,
held from August 22 to 25 in Armação dos Búzios, Rio de Janeiro.

Armação dos Búzios, August 25, 2017.

-----// signature //-----

Júlio Cesar Wasserman

President of the Organizing Committee

Organized by



We hereby certify that the work

**GEOCHEMISTRY OF STREAM SEDIMENTS AT THE CONFLUENCE OF BAIXO JACUÍ AND VACACAÍ-MIRIM HIDROGRAPHIC BASINS
AS A TOOL FOR ENVIRONMENTAL PLANNING, RS, BRAZIL**

authored by

Gomes, C.H.; Dessart, R.L.; Sperandio, D.G.; Borges, N.P.; Barbosa, A.S.

was presented at the **XVI Brazilian Congress of Geochemistry - XVI CBGeoq 2017**,
held from August 22 to 25 in ^{at}Armação dos Búzios, Rio de Janeiro.

Armação dos Búzios, August 25, 2017.

-----// signature //-----

Júlio Cesar Wasserman

President of the Organizing Committee

Organized by

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 17, 2025.



Certificamos que o trabalho

**ANÁLISE DAS CONCENTRAÇÕES DE NITRATO EM ÁGUAS SUPERFICIAIS E SUBTERRÂNEAS EM ÁREA DE ATIVIDADE MINEIRA EM
CAÇAPAVA DO SUL – RS**

de autoria(s)

Junges, K.; ; Gomes, C.H.; Sperandio, D.G.; Dessart, R.L.; Borges, N.P.; Barbosa, A.S.

foi apresentado no **XVI Congresso Brasileiro de Geoquímica - XVI CBGeoq 2017**,
realizado de 22 a 25 de agosto, em Armação de Búzios, Rio de Janeiro.

Armação dos Búzios, 25 de agosto de 2017.

Júlio Cesar Wasserman

Presidente da Comissão Organizadora

Realização



Certificamos que o trabalho

**GEOQUÍMICA DE SEDIMENTOS DE CORRENTE DA CONFLUÊNCIA DAS BACIAS HIDROGRÁFICAS: BAIXO JACUÍ E VACACAÍ-MIRIM,
COMO FERRAMENTA DE PLANEJAMENTO AMBIENTAL, RS, BRASIL**

de autoria(s)

Gomes, C.H.; Dessart, R.L.; Sperandio, D.G.; Borges, N.P.; Barbosa, A.S.

foi apresentado no **XVI Congresso Brasileiro de Geoquímica - XVI CBGeoq 2017**,
realizado de 22 a 25 de agosto, em Armação dos Búzios, Rio de Janeiro.

Armação dos Búzios, 25 de agosto de 2017.

Júlio Cesar Wasserman

Presidente da Comissão Organizadora

Realização

CERTIFICATE

We hereby certify that

RAFAEL LIMA DESSART

Participated in the 32nd Integrated Academic Conference,
held at the Federal University of Santa Maria
from October 23 to 27, 2017, as a

CO-AUTHOR OF THE WORK

“TEACHING GEOSCIENCE THROUGH EXTENSION: EDUCATIONAL ACTIVITIES FOCUSED ON THE GEOLOGY OF THE PAMPA GAÚCHO”

Workload: 30 hours



Integrated Academic Conference – UFSM

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 17, 2025.

CERTIFICADO

Certificamos que

RAFAEL LIMA DESSART

Participou da 32ª Jornada Acadêmica Integrada,
realizada na Universidade Federal de Santa Maria,
entre os dias 23 e 27 de Outubro de 2017 como

CO-AUTOR DO TRABALHO

"ENSINO DE GEOCIÊNCIAS ATRAVÉS DA EXTENSÃO: AÇÕES DE ENSINO VOLTADAS PARA GEOLOGIA DO PAMPA GAÚCHO"

Carga horária: 30 horas



CERTIFICATE

We hereby certify that

RAFAEL LIMA DESSART

Participated in the 32nd Integrated Academic Conference,
held at the Federal University of Santa Maria
from October 23 to 27, 2017, as a

CO-AUTHOR OF THE WORK

“GEOCHEMICAL ASSESSMENT OF SOIL FROM THE MATA³⁶⁸MUNICIPAL CEMETERY USING X-RAY FLUORESCENCE”

Workload: 30 hours



Integrated Academic Conference – UFSM

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 17, 2025.

CERTIFICADO

Certificamos que

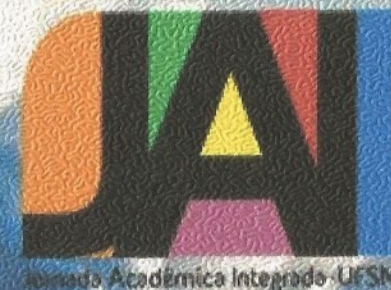
RAFAEL LIMA DESSART

Participou da 32ª Jornada Acadêmica Integrada,
realizada na Universidade Federal de Santa Maria,
entre os dias 23 e 27 de Outubro de 2017 como

CO-AUTOR DO TRABALHO

"AVALIAÇÃO GEOQUÍMICA DO SOLO DO CEMITÉRIO MUNICIPAL DE MATA POR FLUORESCÊNCIA DE RAIOS-X"

Carga horária: 30 horas



**MINISTRY OF EDUCATION
FEDERAL UNIVERSITY OF PAMPA
ENVIRONMENTAL AND SANITARY ENGINEERING PROGRAM**

CERTIFICATE

We hereby certify that the committee members listed below participated in the evaluation of the undergraduate thesis entitled: **“Environmental Study of the Rural Road Between the Municipality of Caçapava do Sul and the Cascata do Salso”**, authored by student **“Débora Caroline Pertilli”**, and evaluated on December 14, 2016.

Prof. Dr. José Waldomiro Jimenez Rojas

Chair/Advisor

Prof. Dr. Cristiane Heredia Gomes

Committee Member

M.Sc. Rafael Dessart

Committee Member

Caçapava do Sul, December 14, 2016.

-----// signature //-----

Prof. Dr. Thiago Henrique Lugokenski

Coordinator of the Environmental and Sanitary Engineering Program

Thiago Henrique Lugokenski

Associate Professor

SIAPE: 2054395

UNIPAMPA-Caçapava do Sul



Caçapava do Sul Campus

Av. Pedro Anunciação Filho, 111 - Vila Batista - Caçapava Do Sul - RS
ZIP Code: 94570-000 - Phone (55) 3281 9000 - Fax: (55) 3281 9001

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 17, 2025.

ATESTADO

Atestamos que os membros da banca, a seguir relacionados, participaram da avaliação do Trabalho de Conclusão de Curso intitulado: **“Estudo ambiental da estrada vicinal entre o município de Caçapava do Sul e a Cascata do Salso”**, de autoria da acadêmica **“Debora Caroline Pertilli”**, avaliado em 14 de dezembro de 2016.

Prof. Dr. José Waldomiro Jimenez Rojas

Presidente/
Orientador

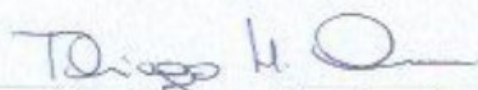
Profa. Dra. Cristiane Heredia Gomes

Avaliador

MSc. Rafael Dessart

Avaliador

Caçapava do Sul, 14 de dezembro de 2016.


Prof. Dr. Thiago Henrique Lugokenski
Coordenador do Curso de Engenharia Ambiental e Sanitária

Thiago Henrique Lugokenski

Professor Adjunto

SIAPÉ: 2054395

UNIPAMPA-Caçapava do Sul

unipampa

Campus Caçapava do Sul

Av. Pedro Anunciação, 111 - Vila Batista - Caçapava do Sul - RS
CEP: 96570-000 - Fone: (55) 3281-9000 - Fax: (55) 3281-9001



FEDERAL PUBLIC SERVICE
MINISTRY OF EDUCATION



CERTIFICATE

I hereby certify that Rafael Lima Dessart served on the Examination Committee for the undergraduate thesis in Geophysics entitled *Geomagnetic Models IGRF and ELEMAG: Possible Implications for Magnetometric Surveys Conducted in the State of Rio Grande do Sul*, authored by student Karolliny Borssatto, under the supervision of Prof. Dr. Everton Frigo and co-supervision of Prof. Dr. Maximilian Fries. The thesis was evaluated on January 19, 2015, at the Caçapava do Sul Campus.

Caçapava do Sul, May 26, 2015

-----// signature //-----
Prof. Dr. Aline Lopes Balladares
Academic Coordinator
UNIPAMPA – Caçapava do Sul Campus

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 17, 2025.



ATESTADO

Atesto que RAFAEL LIMA DESSART integrou a Comissão Examinadora do Trabalho de Conclusão do Curso de Geofísica intitulado *Modelos geomagnéticos IGRF e ELEMAG: possíveis implicações em levantamentos magnetométricos realizados no Estado do Rio Grande do Sul*, realizado pela aluna Karolliny Borssatto, sob orientação do Prof. Dr. Everton Frigo e co-orientação do Prof. Dr. Maximilian Fries, avaliado em 19 de janeiro de 2015, no Campus Caçapava do Sul.

Caçapava do Sul, 26 de maio de 2015


Profª. Drª. Aline Lopes Balladares
Coordenadora Acadêmica
UNIPAMPA - Campus Caçapava do Sul



**FEDERAL PUBLIC SERVICE
MINISTRY OF EDUCATION
FEDERAL UNIVERSITY OF PAMPA
CAÇAPAVA DO SUL CAMPUS**

AVENIDA PEDRO ANUNCIÇÃO FILHO, 111 – VILA BATISTA – CAÇAPAVA DO SUL – RS
ZIP Code: 94570-000 – Phone (55) 3281 1711 or (55) 3281 5141

CERTIFICATE

I hereby certify for all due purposes that Prof. M.Sc. **RAFAEL LIMA DESSART**, holder of CPF No. 692.225.760-04 and RG No. 2017712452, is part of the team responsible for carrying out the Extension Project “New Talents in the Exact and Earth Sciences”, approved under the New Talents Program, Call No. 055/2012/CAPES, conducting the workshop **Geodiversity: A Concept in Practice**. The workshop has a total duration of 40 hours, with 80 hours of faculty involvement (year 2015).

Caçapava do Sul, June 3, 2015.

-----// signature //--

Prof. Dr. Márcio André Rodrigues Martins
Institutional Coordinator of the New Talents Program
Federal University of Pampa

[coordinator stamp]

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 17, 2025.



SERVIÇO PÚBLICO FEDERAL
MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DO PAMPA
CAMPUS DE CAÇAPAVA DO SUL

AVENIDA PEDRO ANUNCIÇÃO FILHO, 111 - VILA BATISTA - CAÇAPAVA DO SUL - RS
CEP 96570-000 - Fone (55) 3281 1711 ou (55) 3281 5141

ATESTADO

Atesto para os devidos fins que o Prof. Msc. **RAFAEL LIMA DESSART**, portador do CPF nº 692225760-04 e RG 2017712452, integra a equipe de execução do Projeto de Extensão "Novos Talentos em Ciências Exatas e da Terra", aprovado no âmbito do Programa Novos Talentos, Edital Nº 055/2012/Capes, desenvolvendo a oficina **Geodiversidade: um conceito na prática**. A referida oficina tem duração de 40 horas e o envolvimento do docente é de 80 horas (ano de 2015).

Caçapava do Sul, 03 de junho de 2015.


Prof. Dr. Márcio André Rodrigues Martins
Coordenador Institucional do Programa Novos Talentos
Universidade Federal do Pampa

Márcio André Rodrigues Martins
Coord. Curso de Lic. em Ciências Exatas
UNIPAMPA
Campus Caçapava do Sul



BRAZILIAN SOCIETY FOR THE ADVANCEMENT OF SCIENCE

Certificate

We hereby certify that RAFAEL LIMA DESSART
participated in the 51st Annual Meeting of SBPC, held from July 11 to 16, 1999, at the Pontifical Catholic University of Rio Grande do Sul,
in Porto Alegre, RS.

Porto Alegre, July 1999.

-----// signature //-----

Prof. Dr. Sérgio Henrique Ferreira
President of SBPC

-----// signature //-----

Prof. Dr. Glaci T. Zancan
Coordinator of the 51st Annual Meeting



BRAZILIAN SOCIETY FOR THE ADVANCEMENT OF SCIENCE

Receipt

We hereby acknowledge receipt from RAFAEL LIMA DESSART
of the amount of R\$ 20.00 (twenty reais)
as payment for registration in the 51st Annual Meeting of SBPC, held from July 11 to 16, 1999, at the Pontifical Catholic University of Rio
Grande do Sul, in Porto Alegre, RS.

Porto Alegre, July 1999.

Note: Please keep this receipt with you during the meeting
(it must be presented upon request).

-----// signature //-----

Prof. Dr. Luiz Carlos de Miranda
First Treasurer of SBPC

Registration No.: 9323 / **Workshop:**

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 17, 2025.



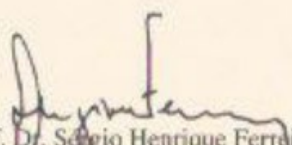
SOCIEDADE BRASILEIRA PARA O PROGRESSO DA CIÊNCIA

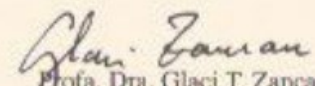
Atestado

Atestamos que **RAFAEL LIMA DESSART**

participou da 51ª Reunião Anual da SBPC, realizada de 11 a 16 de julho de 1999, na Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre-RS.

Porto Alegre, julho de 1999.


Prof. Dr. Sérgio Henrique Ferreira
Presidente da SBPC


Profa. Dra. Glaci T. Zancan
Coordenadora da 51ª Reunião Anual

382



SOCIEDADE BRASILEIRA PARA O PROGRESSO DA CIÊNCIA

Recibo

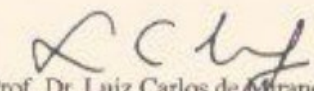
Recebemos de **RAFAEL LIMA DESSART**

o valor de **R\$ 20,00 (vinte reais)**

referente à sua inscrição na 51ª Reunião Anual da SBPC, realizada de 11 a 16 de julho de 1999, na Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre-RS.

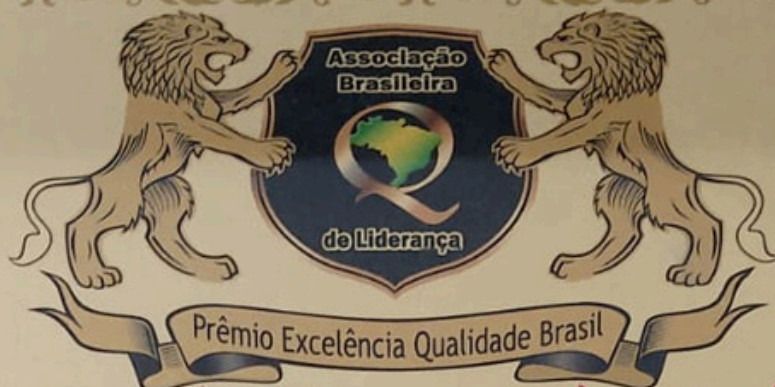
Porto Alegre, julho de 1999.

Atenção: Permaneça com este recibo durante a Reunião
(é necessária a sua apresentação).


Prof. Dr. Luiz Carlos de Miranda
1º Tesoureiro da SBPC

Inscrição nº...9323...../Minicurso:.....

**C.II - Second Prong -
Well-Positioned to
Advance the
Proposed Endeavor -
Professional
Recognition and
Awards**



Brazil 2025 Excellence and Quality Award

Brazilian Leadership Association Encouraging
those that stand out before society in the most
Several Areas Grant this Significant
Public Recognition:

COMMANDER PHD. RAFAEL LIMA DESSART

BEST OF THE YEAR - Category - "PROFESSIONAL OF THE YEAR / NATIONAL HIGHLIGHT / SOCIAL MERIT
ACADEMIC PROFESSIONAL SPECIALIZED GEOLOGY AND ENVIRONMENTAL SERVICES"

CIVIL REGISTRY OF NATURAL PERSONS
11th SUBDISTRICT - SANTA CECÍLIA - SÃO PAULO - CAPITAL
Registrar: Fernando Navarro - Deputy Registrar: Theresinha de Souza Vasconcelos Navarro
AV. Pacaembu, 1267 - Santa Cecília - Capital - SP - (11) 3667-2642

I hereby certify, by similarity, the signature of: (1) MOISES HARTMAN ALFEIDA, on a document with no economic value, which I attest to be true,
São Paulo, November 26/2025.
In witness whereof.

Cty: 1 - Fee: R\$ 8.63 - Seal(s): 1 - Act: 1073AA-094743

1st CIVIL REGISTRY OF SANTA CECÍLIA
VALID ONLY WITH THE AUTHENTICITY SEAL, WITHOUT ERASURES AND/OR ALTERATIONS
J. IDENA DE CARVALHO BARRETO
Authorized Clerk

11th CIVIL REGISTRY
Pacaembu, 1207
São Paulo - SP

Signature: 115147
S11073AA0817143

Featured Among the Best in Brazil!

São Paulo, November 24, 2025

Brazilian Leadership Association
Brasil Líderes Institute
CNPJ - 11.263.377/0001-58

PHD. RAFAEL

BEST OF THE YEAR – Category – "PROFESSIONAL"

ACADEMIC PROFESSIONAL SPECIALIZED



CIVIL REGISTRY OF NATURAL PERSONS
11th SUBDISTRICT – SANTA CECÍLIA – SÃO PAULO – CAPITAL
Registrar: Fernando Navarro - Deputy Registrar: Therezinha de Souza Vasconcelos Navarro
AV. Facaembú, 1207 - Santa Cecília - Capital - SP - (11) 3667-2642

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São Paulo, November 26 2025.

In witness _____ whereof.

Qty: 1 - Fee: R\$ 8.63 Seal(s): 1 - Act: 1073AA-0817143

1st CIVIL REGISTRY OF SANTA CECÍLIA

JUREMA DE CARVALHO BARRETO

Authorized Clerk



Notarial College
of Brazil
São Paulo Section

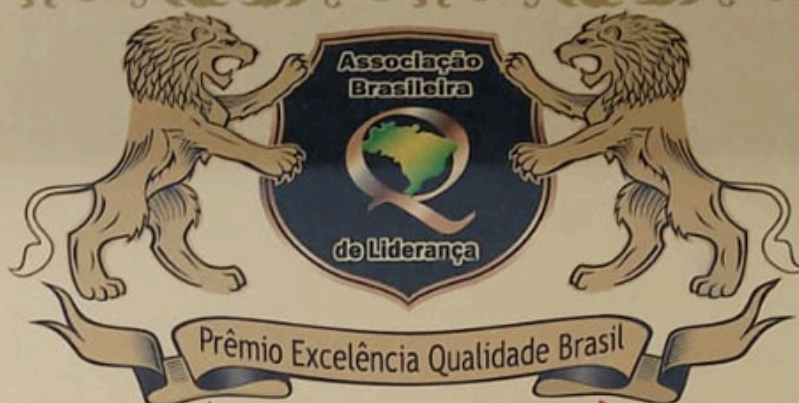
115147
SIGNATURE

S11073AA0817143

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: January 27, 2026



Brazil 2025 Excellence and Quality Award

Brazilian Leadership Association Encouraging
those that stand out before society in the most
Several Areas Grant this Significant
Public Recognition:

**COMMANDER
PHD. RAFAEL LIMA DESSART**

BEST OF THE YEAR - Category - "PROFESSIONAL OF THE YEAR / NATIONAL HIGHLIGHT / SOCIAL MERIT
ACADEMIC PROFESSIONAL SPECIALIZED GEOLOGY AND ENVIRONMENTAL SERVICES"



Featured Among the Best in Brazil!

São Paulo, November 24, 2025

Heitor Herman
Brazilian Leadership Association
Brasil Líderes Institute
CNPJ - 11.263.377/0001-90

PHD. RAFAEL

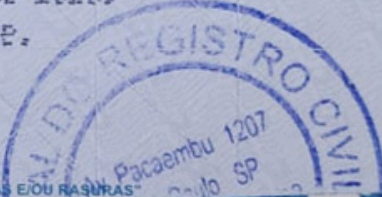
BEST OF THE YEAR – Category – "PROFESSIONAL"
ACADEMIC PROFESSIONAL SPECIALIZED

 **OFICIAL DE REGISTRO CIVIL DAS PESSOAS NATURAIS**
11.º SUB. SANTA CECÍLIA - SÃO PAULO - CAPITAL
Oficial: Fernando Navarro • Oficial Substituta: Therezinha de Souza Vasconcelos Navarro
AV. Pacaembu, 1207 - Santa Cecília - Capital - SP - (11) 3667-2642

Reconheço, por semelhança, a firma de: (1) MOISES HARTMANN ALMEIDA,
em documento sem valor econômico, com fé.
São Paulo, 26 de novembro de 2025.
Em Teste _____ da verdade.

Qtd 1; R\$ 8,42 Selos(1); 1 Selo: S11073AA-0817143

1º REGISTRO CIVIL DE SANTA CECÍLIA
JURISDIÇÃO DE CARVALHO BARRETO
Empresária Autorizada


Pacaembu 1207
SP

  Colégio Notarial do Brasil
Seção São Paulo  ARPEN SP

115147
FIRMA 1

S11073AA0817143

**Brazilian Leadership Association
Brazil Excellence and Quality Award Medal**



I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: January 27, 2026



Brazilian Leadership Association Brazil Excellence and Quality Award



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Marina Viana

Date: January 27, 2026



**C.II - Second Prong -
Well-Positioned to
Advance the
Proposed Endeavor -
Financial Feasibility**

NAME: RAFAEL LIMA DESSART		INCOME TAX - INDIVIDUAL	
CPF: 692.225.760-04			
ANNUAL ADJUSTMENT DECLARATION		TAX YEAR 2025	CALENDAR YEAR 2024

TAXPAYER IDENTIFICATION			
Name:	RAFAEL LIMA DESSART	CPF:	692.225.760-04
Date of Birth:	08/20/1975		
Do you have a spouse or partner?	No		
Were you a resident abroad and became a resident in Brazil in 2024?	No		
Were there any changes to the registration details?	No		
Is one of the declarants a person with a serious illness or a physical or mental disability?	No		
Address:	RUA GENERAL OSORIO	Number:	1295
Unit:		Neighborhood/District:	CENTRO
City:	CACAPAVA DO SUL	State:	RS
ZIP Code:	96570-000	Area Code/Telephone:	(51) 9802-0840
Email:		Area Code/Mobile:	
Occupation Type:	91 - Occupation type not previously specified		
Main Occupation:	000 – Other occupations type not previously specified		
Type of Declaration:	Original Annual Adjustment Declaration		
Receipt Number of the last declaration filed in the 2024 tax year:	41.46.52.70.23-09		

DEPENDENTS
No Information

ALIMONY RECIPIENTS
No Information

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE TAXPAYER					(Values in Reais)
NAME OF THE PAYING SOURCE	INCOME RECEIVED FROM LEGAL ENTITY	OFFICIAL SOCIAL SECURITY CONTRIBUTION	WITHHELD TAX	13 th SALARY	INCOME TAX WITHHELD ON 13 th SALARY
MANY SOURCES	30.200,00	0,00	0,00	0,00	0,00
CNPJ/CPF:					
TOTAL	30.200,00	0,00	0,00	0,00	0,00

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY DEPENDENTS
No Information

TAXABLE INCOME RECEIVED FROM INDIVIDUALS AND ABROAD BY THE TAXPAYER

(Values in Reais)

NIT/PIS/PASEP: 119.68948.75-3

INCOMES				
	NON-SALARIED WORK	RENTALS, INCLUDING SHORT- TERM RENTALS	OTHERS	ABROAD
JAN	0,00	1.006,50	0,00	0,00
FEB	0,00	1.027,35	0,00	0,00
MAR	0,00	981,34	0,00	0,00
APR	0,00	981,34	0,00	0,00
MAY	0,00	981,34	0,00	0,00
JUN	0,00	981,34	0,00	0,00
JUL	0,00	981,34	0,00	0,00
AUG	0,00	981,34	0,00	0,00
SEP	0,00	981,34	0,00	0,00
OCT	0,00	981,34	0,00	0,00
NOV	0,00	981,34	0,00	0,00
DEC	0,00	981,34	0,00	0,00
TOTAL	0,00	11.847,25	0,00	0,00

DEDUCTIONS		CARNÊ-LEÃO		
OFFICIAL PENSION	NUMBER OF DEPENDENTS	ALIMONY	CASH BOOK	PAID DARF CODE 0190
JAN	0,00	0	0,00	0,00
FEB	0,00	0	0,00	0,00
MAR	0,00	0	0,00	0,00
APR	0,00	0	0,00	0,00
MAY	0,00	0	0,00	0,00
JUN	0,00	0	0,00	0,00
JUL	0,00	0	0,00	0,00
AUG	0,00	0	0,00	0,00
SEP	0,00	0	0,00	0,00
OCT	0,00	0	0,00	0,00
NOV	0,00	0	0,00	0,00
DEC	0,00	0	0,00	0,00
TOTAL	0,00		0,00	0,00

* NIT - Worker's Identification Number

* PIS - Program for Social Integration

* PASEP - Public Servant's Property Formation Program

* CARNÊ-LEÃO - (Income tax that must be paid monthly, mandatorily, by individuals residing in Brazil who receive income from another individual or from abroad)

* DARF - Tax Payment Document

NAME: RAFAEL LIMA DESSART**CPF: 692.225.760-04****ANNUAL ADJUSTMENT DECLARATION****INCOME TAX - INDIVIDUAL****TAX YEAR 2025****CALENDAR YEAR 2024****TAXABLE INCOME RECEIVED FROM INDIVIDUALS AND ABROAD BY DEPENDENTS**

No Information

EXEMPT AND NON-TAXABLE INCOME

(Values in Reais)

09. Profits and received dividends 99,56

Beneficiary	CPF	CNPJ of the Paying Source	Name of the Paying Source	Amount
Taxpayer	692.225.760-04	50.926.955/0001-42	VULCABRAS S/A	50,00
Taxpayer	692.225.760-04	08.294.224/0001-65	JHSF PARTICIPACOES S A	49,56

12. Income from savings accounts, mortgage bonds, agribusiness, and real estate letters of credit (LCA and LCI), and certificates of agribusiness and real estate receivables (CRA and CRI) 180,82

Beneficiary	CPF	CNPJ of the Paying Source	Name of the Paying Source	Amount
Taxpayer	692.225.760-04	00.360.305/0001-04	CAIXA ECONOMICA FEDERAL	180,82

25. Income tax refund from previous calendar years 469,42

99. Others 11.921,26

Beneficiary	CPF	CPF/CNPJ of the Paying Source	Name of the Paying Source	Description	Amount
Taxpayer	692.225.760-04	16.671.412/0001-93	FII TELLUS RIO BRAVO RENDA LOGISTICA	FINANCIAL INVESTMENTS IN REAL ESTATE INVESTMENT FUND	704,62
Taxpayer	692.225.760-04	18.979.895/0001-13	CAPITANIA SECURITIES II FDO IN	FINANCIAL INVESTMENTS IN REAL ESTATE INVESTMENT FUND	962,99
Taxpayer	692.225.760-04	36.642.219/0001-31	RIZA AKIN FII	FINANCIAL INVESTMENTS IN REAL ESTATE INVESTMENT FUND	714,26
Taxpayer	692.225.760-04	42.537.579/0001-76	FI AGRO IMOBILIARIO CAPITANIA STRATEGIES	FINANCIAL INVESTMENTS IN REAL ESTATE INVESTMENT FUND	395,00
Taxpayer	692.225.760-04	50.180.894/0001-17	DAYCOVAL D3 FUNDO DE INVESTIMENTO IMOBILIRIO	FINANCIAL INVESTMENTS IN REAL ESTATE INVESTMENT FUND	2.400,00
Taxpayer	692.225.760-04	50.750.438/0001-65	RIZA DOMUS FII RZDS17	FINANCIAL INVESTMENTS IN REAL ESTATE INVESTMENT FUND	2.782,00
Taxpayer	692.225.760-04	42.888.292/0001-90	FIAGRO JGP COT	FINANCIAL INVESTMENTS IN REAL ESTATE	2.949,14

NAME: RAFAEL LIMA DESSERT			INCOME TAX - INDIVIDUAL	
CPF: 692.225.760-04			TAX YEAR 2025	CALENDAR YEAR 2024
ANNUAL ADJUSTMENT DECLARATION				

			INVESTMENT FUND	
Taxpayer	692.225.760-04	35.507.457/0001-71	VBI REITS FOF FUNDO DE INVESTIMENTO IMOBILIARIO	FINANCIAL INVESTMENT IN REAL ESTATE INVESTMENT FUND
				1.013,25
TOTAL				12.671,06
INCOME SUBJECT TO EXCLUSIVE/DEFINITIVE TAXATION				(Values in Reais)

06. Income from financial investments				30.042,44
Beneficiary	CPF	CNPJ of the Paying Source	Name of the Paying Source	Amount
Taxpayer	692.225.760-04	38.065.012/0001-77	FI IE CAPITANIA INFRA IE RF CREDITO PRIVADO	986,00
Taxpayer	692.225.760-04	04.621.721/0001-70	XP TOP CP RF FI LONGO PRAZO	2.409,45
Taxpayer	692.225.760-04	10.843.445/0001-97	XP REFERENCIADO FIF RF REFERENCIADO DI CP RL	1.892,23
Taxpayer	692.225.760-04	12.154.412/0001-65	IBIUNA HEDGE FIC FIM	571,07
Taxpayer	692.225.760-04	13.396.703/0001-22	VINCI VALOREM FIM	170,61
Taxpayer	692.225.760-04	20.146.294/0001-71	CAPITANIA PREMIUM 45 FIRC CP LP	906,69
Taxpayer	692.225.760-04	22.681.798/0001-17	AZ QUEST TERMO FIRF	937,40
Taxpayer	692.225.760-04	22.918.359/0001-85	QUANTITAS FIC FIM MALLORCA	507,44
Taxpayer	692.225.760-04	28.581.109/0001-89	VINLAND MACRO ADVISORY FIC FIM	328,52
Taxpayer	692.225.760-04	29.732.926/0001-53	IBIUNA LONG SHORT ADVISORY FIC FIM	22,46
Taxpayer	692.225.760-04	30.509.221/0001-50	V8 CASH FIC DE FI RF	3.198,47
Taxpayer	692.225.760-04	33.520.968/0001-06	KAPITALO K10 ADVISORY FIC FIM	798,70
Taxpayer	692.225.760-04	34.687.441/0001-25	VINLAND ATIVO ADVISORY FIF CIC RF LP LIMITED LIABILITY	862,68
Taxpayer	692.225.760-04	38.026.926/0001-29	SPARTA TOP INFLACAO FIC FIF RF CP LP LIMITED LIABILITY	1.408,49
Taxpayer	692.225.760-04	42.260.903/0001-51	RIZA STATHEROS FIC FIM CP	887,28
Taxpayer	692.225.760-04	44.982.118/0001-38	RBR INFRA CREDITO FI INFRA RBRJ11	1.680,00
Taxpayer	692.225.760-04	45.278.833/0001-57	TREND DI FIC FIRF SIMPLES	4.574,77
Taxpayer	692.225.760-04	45.823.918/0001-79	TREND CASH FIC FIRF SIMPLES	0,07
Taxpayer	692.225.760-04	46.098.897/0001-39	OCCAM LIQUIDEZ FIC FIF RF CP RL	4.142,52
Taxpayer	692.225.760-04	50.697.486/0001-37	MAG HIGH GRADE PLUS 30 FIRF CP LP	1.241,20
Taxpayer	692.225.760-04	36.368.869/0001-30	BLMR11	838,64
Taxpayer	692.225.760-04	30.680.829/0001-43	NU FINANCEIRA S.A. - SOCIEDADE DE CREDITO, FINANCIAMENTO E I	64,61
Taxpayer	692.225.760-04	33.264.668/0001-03	BANCO XP S/A	28,18
Taxpayer	692.225.760-04	02.332.886/0001-04	DIRF 2024XP INVESTIMENTOS CCTVM S/A	1.584,96

10. Interest on Equity				322,44
Beneficiary	CPF	CNPJ of the Paying Source	Name of the Paying Source	Amount
Taxpayer	692.225.760-04	33.592.510/0001-54	VALE S.A.	88,49

NAME: RAFAEL LIMA DESSART			INCOME TAX - INDIVIDUAL	
CPF: 692.225.760-04			TAX YEAR 2025	
ANNUAL ADJUSTMENT DECLARATION			CALENDAR YEAR 2024	

Taxpayer	692.225.760-04	60.746.948/0001-12	BANCO BRADESCO S A	233,95	
13. Others				537,58	
Beneficiary	CPF	CPF/CNPJ of the Paying Source	Name of the Paying Source	Description	Amount
Taxpayer	692.225.760-04	74.267.170/0001-73	ICATU CAPITALIZACAO S/A	PREMIOS OBTIDOS EM CONCURSOS E SORTEIOS	537,58
TOTAL				30.902,46	

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE TAXPAYER (TAX WITH SUSPENDED EXIGIBILITY)

No Information

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE DEPENDENTS (TAX WITH SUSPENDED EXIGIBILITY)

No Information

TAXABLE INCOME FROM LEGAL ENTITY RECEIVED CUMULATIVELY BY THE TAXPAYER

No Information

TAXABLE INCOME FROM LEGAL ENTITY RECEIVED CUMULATIVELY BY THE DEPENDENTS

No Information

TAX PAID / WITHHELD

No Information

PAYMENTS MADE (Values in Reais)

CODE	BENEFICIARY NAME	BENEFICIARY CPF/CNPJ	AMOUNT PAID	NON-DEDUCTABLE PORTION
Taxpayer				
11	GUSTAVO PESSOTA RODRIGUES	752.538.520-34	600,00	0,00
Description: DENTIST				
26	UNIMED PORTO ALEGRE COOPERATIVA MEDICA LTDA	87.096.616/0001-96	14.538,14	0,00
Description:				
70	CONSTRUTORA CELEGI LTDA.	00.156.111/0001-91	23.090,60	0,00
Description:				
71	GRPQA LTDA	16.788.643/0001-81	1.883,84	0,00
Description:				

DONATIONS MADE

No Information

NAME: RAFAEL LIMA DESSERT

CPF: 692.225.760-04

ANNUAL ADJUSTMENT DECLARATION

INCOME TAX - INDIVIDUAL

TAX YEAR 2025

CALENDAR YEAR 2024

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?	No
---	----

GROUP	CODE	DISCLOSURE	STATUS ON	
			12/31/2023	12/31/2024

01	11	APARTMENT 401 LOCATED AT AVENIDA INDEPENDENCIA NO. 687 IN PORTO ALEGRE/RS. PURCHASED IN 1980.	69.799,24	69.799,24
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105 - Brazil

Municipal Registration (IPTU):

Address: No.:
Unit: Neighborhood:
City: State: ZIP Code:
Total Area: 0,0 Acquisition Date: / /
Registered at the Registry Office:

01	13	URBAN LAND WITHOUT IMPROVEMENTS, CONSISTING OF LOT 39, BLOCK 0088, FORMERLY BLOCK D-21, SECTOR 116, LOCATED IN BALNEÁRIO NOVA TRAMANDAÍ PLANO A, IN THE CITY OF TRAMANDAÍ/RS.	55.000,00	0,00
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105 - Brazil

Municipal Registration (IPTU):

Address: No.:
Unit: Neighborhood:
City: State: ZIP Code:
Total Area: 0,0 Acquisition Date: 12/08/2021
Registered at the Registry Office:

02	99	VOLKSWAGEN VEHICLE MODEL UP MOVE MCV, YEAR/MODEL 2017/2018, ACQUIRED ON 02/27/2018 FROM PAMPEIRO S.A. COMÉRCIO DE AUTOMÓVEIS, CNPJ 95.594.164/0001-09.	46.000,00	46.000,00
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105 - Brazil

Asset or right belonging to: Taxpayer CPF: 692.225.760-04
CNPJ: 00.360.305/0001-04
Bank: 104 Branch: 0641 Account: 000584546625-0

04	02	RDB (Certificate of Deposit) BALANCE AT NUBANK, BRANCH 0001 ACCOUNT 20151552-6	6,23	0,00
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105 - Brazil

Asset or right belonging to: Taxpayer CPF: 692.225.760-04
CNPJ: 30.680.829/0001-43

NAME: RAFAEL LIMA DESSERT

CPF: 692.225.760-04

ANNUAL ADJUSTMENT DECLARATION

INCOME TAX - INDIVIDUAL

TAX YEAR 2025

CALENDAR YEAR 2024

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?	No
---	----

GROUP	CODE	DISCLOSURE	STATUS ON	
			12/31/2023	12/31/2024
04	02	FIXED INCOME INVESTMENT AT XP INVESTIMENTOS CCTVM S/A	69.031,81	0,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
CNPJ: 02.332.886/0001-04				
04	99	SHARE CAPITAL OF FOREIGN COMPANY DGEO ENTERPRISE LLC.	25.919,33	0,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
CNPJ:				
06	01	REPORTED BY CNPJ 02.332.886/0001-04	536,97	0,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
CNPJ: 02.332.886/0001-04				
Bank: 102	Branch: 0001	Account: 20015-3	Payment Account? No	
06	01	CHECKING ACCOUNT BALANCE AT XP INVESTIMENTOS CCTVM S/A	536,97	0,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
CNPJ: 02.332.886/0001-04				
Bank: 102	Branch: 0001	Account: 20015-3	Payment Account? No	
06	01	CHECKING ACCOUNT BALANCE AT CAIXA ECONOMICA FEDERAL	15.692,09	59.680,97
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
CNPJ: 00.360.305/0001-04				
Bank: 104	Branch: 0454	Account: 000058456625-0	Payment Account? No	
07	01	INVESTMENT FUND AT XP INVESTIMENTOS	196.859,70	0,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 02.332.886/0001-04				

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?

No

GROUP	CODE	DISCLOSURE	STATUS ON	
			12/31/2023	12/31/2024
07	01	TREND DI INVESTMENT FUND IN SHARES OF SIMPLE FIXED INCOME INVESTMENT FUNDS – REPORTED BY CNPJ 02.332.886/0001-04	0,00	101.222,47
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 45.278.833/0001-57				
07	01	KAPITALO K10 ADVISORY INVESTMENT FUND IN SHARES OF MULTIMARKET INVESTMENT FUNDS - REPORTED BY CNPJ 02.332.886/0001-04	0,00	10.799,45
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 33.520.968/0001-06				
07	01	IBIUNA LONG SHORT ADVISORY FIF - MULTIMARKET SHARES INVESTMENT CLASS – LIMITED LIABILITY - REPORTED BY CNPJ 02.332.886/0001-04	0,00	10.022,49
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 29.732.926/0001-53				
07	01	CAPITANIA PREMIUM INVESTMENT FUND IN SHARES OF FIXED INCOME PRIVATE CREDIT INVESTMENT FUNDS - REPORTED BY CNPJ 02.332.886/0001-04	0,00	10.914,01
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 20.146.294/0001-71				
07	01	SPARTA TOP INFLACAO FIC DE FIF LONG-TERM FIXED INCOME PRIVATE CREDIT – LIMITED LIABILITY - REPORTED BY CNPJ 02.332.886/0001-04	0,00	31.408,36
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 38.026.926/0001-29				
07	01	VINLAND MACRO ADVISORY INVESTMENT FUND IN SHARES OF MULTIMARKET INVESTMENT FUNDS - REPORTED BY CNPJ 02.332.886/0001-04	0,00	11.118,23
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 28.581.109/0001-89				

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?

No

GROUP	CODE	DISCLOSURE	STATUS ON	
			12/31/2023	12/31/2024
07	01	XP REFERENCED FI FINANCIAL FIXED INCOME REFERENCED DI PRIVATE CREDIT – LIMITED LIABILITY - REPORTED BY CNPJ 02.332.886/0001-04	0,00	27.542,22
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 10.843.445/0001-97				
07	01	XP CORPORATE TOP PRIVATE CREDIT FI FINANCIAL IN LONG-TERM FIXED INCOME - LIMITED LIABILITY - REPORTED BY CNPJ 02.332.886/0001-04	0,00	28.616,37
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 04.621.721/0001-70				
07	01	MAG HIGH GRADE PLUS 30 LONG-TERM FIXED INCOME PRIVATE CREDIT INVESTMENT FUND - REPORTED BY CNPJ 02.332.886/0001-04	0,00	10.940,58
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 50.697.486/0001-37				
07	01	OCCAM LIQUIDITY FIC OF FINANCIAL INVESTMENT FUNDS IN FIXED INCOME PRIVATE CREDIT - LIMITED LIABILITY - REPORTED BY CNPJ 02.332.886/0001-04	0,00	62.495,78
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 46.098.897/0001-39				
07	01	RIZA DOMUS REAL ESTATE INVESTMENT FUND - REPORTED BY CNPJ 02.332.886/0001-04	0,00	20.000,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 50.750.438/0001-65				
07	01	QUANTITAS INVESTMENT FUND IN SHARES OF MULTIMARKET INVESTMENT FUNDS MALLORCA - REPORTED BY CNPJ 02.332.886/0001-04	0,00	10.515,29
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 22.918.359/0001-85				

NAME: RAFAEL LIMA DESSERT

CPF: 692.225.760-04

ANNUAL ADJUSTMENT DECLARATION

INCOME TAX - INDIVIDUAL

TAX YEAR 2025

CALENDAR YEAR 2024

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?	No
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GROUP	CODE	DISCLOSURE	STATUS ON	
			12/31/2023	12/31/2024
07	01	DAO MULTIFACTOR LONG BIASED INVESTMENT FUND IN SHARES OF MULTIMARKET INVESTMENT FUNDS - REPORTED BY CNPJ 02.332.886/0001-04	0,00	10.000,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 40.920.066/0001-14				
07	01	TREND US STOCK MARKET DOLLAR FINANCIAL INVESTMENT FUND IN EQUITIES - LIMITED LIABILITY - REPORTED BY CNPJ 02.332.886/0001-04	0,00	20.000,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 31.874.833/0001-05				
07	01	V8 CASH FIXED INCOME PRIVATE CREDIT INVESTMENT FUND - REPORTED BY CNPJ 02.332.886/0001-04	0,00	98.221,80
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 30.509.221/0001-50				
07	01	GUEPARDO INSTITUCIONAL FINANCIAL INVESTMENT FUND IN SHARES OF EQUITY INVESTMENT FUNDS - REPORTED BY CNPJ 02.332.886/0001-04	0,00	10.000,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 08.830.947/0001-31				
07	01	HASHDEX BITCOIN MULTIMARKET INVESTMENT FUND - REPORTED BY CNPJ 02.332.886/0001-04	0,00	20.000,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 36.986.672/0001-65				
07	01	IBIUNA HEDGE FIF - MULTIMARKET SHARES INVESTMENT CLASS - LIMITED LIABILITY - REPORTED BY CNPJ 02.332.886/0001-04	0,00	10.754,46
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 12.154.412/0001-65				

NAME: RAFAEL LIMA DESSART

CPF: 692.225.760-04

ANNUAL ADJUSTMENT DECLARATION

INCOME TAX - INDIVIDUAL

TAX YEAR 2025

CALENDAR YEAR 2024

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?	No
---	----

GROUP	CODE	DISCLOSURE	STATUS ON	
			12/31/2023	12/31/2024
07	01	TREND CASH INVESTMENT CLASS IN SIMPLE FIXED INCOME SHARES - LIMITED LIABILITY - REPORTED BY CNPJ 02.332.886/0001-04	0,00	28.263,65
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 45.823.918/0001-79				
07	01	AZ QUEST TERM LONG-TERM FIXED INCOME INVESTMENT FUND - REPORTED BY CNPJ 02.332.886/0001-04	0,00	11.213,27
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 22.681.798/0001-17				
07	01	VINLAND ATIVO ADVISORY CIC LONG-TERM FIXED INCOME FINANCIAL INVESTMENT FUND - LIMITED LIABILITY - REPORTED BY CNPJ 02.332.886/0001-04	0,00	11.108,70
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 34.687.441/0001-25				
07	01	RIZA STATHEROS INVESTMENT FUND IN SHARES OF MULTIMARKET PRIVATE CREDIT INVESTMENT FUNDS - REPORTED BY CNPJ 02.332.886/0001-04	0,00	21.929,37
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 42.260.903/0001-51				
07	01	VALORA REAL ESTATE MULTISTRATEGY PREMIUM REAL ESTATE INVESTMENT FUND – REIT - REPORTED BY CNPJ 02.332.886/0001-04	0,00	20.000,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 50.180.894/0001-17				
07	01	TREND US STOCK MARKET EQUITY INVESTMENT FUND LIMITED LIABILITY - REPORTED BY CNPJ 02.332.886/0001-04	0,00	20.000,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 31.145.826/0001-72				

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?

No

GROUP	CODE	DISCLOSURE	STATUS ON	
			12/31/2023	12/31/2024
07	01	RBR INFRA CREDITO INVESTMENT FUND IN SHARES OF TAX-INCENTIVIZED FIXED INCOME INFRASTRUCTURE INVESTMENT FUNDS - REPORTED BY CNPJ 02.332.886/0001-04	0,00	15.000,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 44.982.118/0001-38				
07	06	ICATU CAPITALIZATION BOND	21.756,44	0,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Fund's CNPJ: 74.267.170/0001-73				
Traded on the Stock Exchange: No				
08	01	QUANTITY OF 0.0000000054 BTC ON 12/31/2024 - REPORTED BY CNPJ 50.459.025/0001-26	0,00	0,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Custodian CNPJ: 50.459.025/0001-26				
Self-custodian: No				
08	02	QUANTITY OF 0.1592000000 AXS ON 12/31/2024 - REPORTED BY CNPJ 29.242.868/0001-80	0,00	0,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Custodian CNPJ: 29.242.868/0001-80				
Self-custodian: No CODE Altcoin: 999				
08	03	QUANTITY OF 0.0000000031 USDT ON 12/31/2024 - REPORTED BY CNPJ 50.459.025/0001-26	0,00	0,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				
Custodian CNPJ: 50.459.025/0001-26				
Self-custodian: No CODE Stablecoin: USDT				
08	99	QUANTITY OF 0.1990000000 NEAR ON 12/31/2024 - REPORTED BY CNPJ 29.242.868/0001-80	0,00	0,00
105 - Brazil				
Asset or right belonging to: Taxpayer CPF: 692.225.760-04				

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?

No

GROUP	CODE	DISCLOSURE	STATUS ON	
			12/31/2023	12/31/2024
99	06	ACCUMULATED BALANCE IN VGBL PLAN	0,00	350.000,00
105 - Brazil				
CNPJ: 29.408.732/0001-05				
TOTAL			511.146,57	1.158.755,87

ENCUMBRANCES AND REAL LIABILITIES

No Information

DONATIONS TO POLITICAL PARTIES AND CANDIDATES FOR ELECTIVE OFFICES

No Information

NAME: RAFAEL LIMA DESSART

CPF: 692.225.760-04

ANNUAL ADJUSTMENT DECLARATION

INCOME TAX - INDIVIDUAL

TAX YEAR 2025

CALENDAR YEAR 2024

STATEMENT OF RURAL ACTIVITY - BRAZIL

IDENTIFICATION DATA OF THE EXPLORED PROPERTY - BRAZIL

No Information

INCOME AND EXPENSES - BRAZIL

No Information

CALCULATION OF THE RESULT - BRAZIL

No Information

LIVESTOCK ACTIVITY - BRAZIL

No Information

ASSETS OF RURAL ACTIVITY - BRAZIL

No Information

DEBTS RELATED TO RURAL ACTIVITY - BRAZIL

No Information

NAME: RAFAEL LIMA DESSART

CPF: 692.225.760-04

INCOME TAX - INDIVIDUAL

ANNUAL ADJUSTMENT DECLARATION

TAX YEAR 2025

CALENDAR YEAR 2024

STATEMENT OF RURAL ACTIVITY - ABROAD

IDENTIFICATION DATA OF THE EXPLORED PROPERTY - ABROAD

No Information

INCOME AND EXPENSES - ABROAD

No Information

CALCULATION OF THE RESULT - ABROAD

No Information

LIVESTOCK ACTIVITY - ABROAD

No Information

ASSETS OF RURAL ACTIVITY - ABROAD

No Information

DEBTS RELATED TO RURAL ACTIVITY - ABROAD

No Information

STATEMENT OF CAPITAL GAINS CALCULATION

No Information

NAME: RAFAEL LIMA DESSART

CPF: 692.225.760-04

INCOME TAX - INDIVIDUAL

ANNUAL ADJUSTMENT DECLARATION

TAX YEAR 2025

CALENDAR YEAR 2024

VARIABLE INCOME - COMMON OPERATIONS/DAY TRADE - TAXPAYER

NET GAINS OR LOSSES - JAN

No Information

NET GAINS OR LOSSES - FEB

No Information

NET GAINS OR LOSSES - MAR

No Information

NET GAINS OR LOSSES - APR

No Information

NET GAINS OR LOSSES - MAY

No Information

NET GAINS OR LOSSES - JUN

No Information

NET GAINS OR LOSSES - JUL

No Information

NET GAINS OR LOSSES - AUG

No Information

NET GAINS OR LOSSES - SEP

No Information

NET GAINS OR LOSSES - OCT

No Information

NET GAINS OR LOSSES - NOV

No Information

NET GAINS OR LOSSES - DEC

No Information

VARIABLE INCOME - COMMON OPERATIONS/DAY TRADE - DEPENDENTS

No Information

REAL ESTATE INVESTMENT FUNDS OR IN AGRO-INDUSTRIAL PRODUCTION CHAINS - TAXPAYER

No Information

REAL ESTATE INVESTMENT FUNDS OR IN AGRO-INDUSTRIAL PRODUCTION CHAINS - DEPENDENTS

No Information

DONATIONS DIRECTLY IN THE DECLARATION - ECA (STATUTE OF THE CHILD AND ADOLESCENT)

No Information

DONATIONS DIRECTLY IN THE DECLARATION - ELDERLY

No Information

NAME: RAFAEL LIMA DESSART**CPF: 692.225.760-04****ANNUAL ADJUSTMENT DECLARATION****INCOME TAX - INDIVIDUAL****TAX YEAR 2025****CALENDAR YEAR 2024****SUMMARY****TAXATION USING LEGAL DEDUCTIONS****TAXABLE INCOME**

Received from Legal Entity by the taxpayer	30.200,00
Received from Legal Entity by dependents	0,00
Received from Individual/Abroad by the taxpayer	11.847,25
Received from Individual/Abroad by Dependents	0,00
Received Cumulatively by the taxpayer	0,00
Received Cumulatively by dependents	0,00
Taxable Income from Rural Activity	0,00
TOTAL	42.047,25

DEDUCTIONS

Contributions to the official and closed complementary pension systems referred to in § 15 of Article 40 of the CF (Federal Constitution)/1988 (up to the sponsor limit)	0,00
Contribution to the official pension system (Income received cumulatively)	0,00
Contribution to the complementary pension system, including the amount for the closed systems referred to in Article 40, § 15, of the CF (Federal Constitution)/1988, which exceeds the sponsor's limit	0,00
Dependents	0,00
Education Expenses	0,00
Medical Expenses	15.138,14
Judicial Alimony	0,00
Alimony by Public Deed	0,00
Judicial Alimony (Income received cumulatively)	0,00
Cash Book	0,00
TOTAL	15.138,14

TAX DUE

Tax Base	26.909,11
Tax Due	0,00
Incentive Deduction	0,00
Tax Due I	0,00
Tax Due RRA (on received accumulated income)	0,00
Effective Tax Rate (%)	0,00
Total Tax Due	0,00

TAX TO BE REFUNDED

0,00

BALANCE OF TAX PAYABLE

0,00

INSTALLMENT PLAN

Installment Amount	0,00
Number of Installments	0

BANKING INFORMATION

Automatic debit: NO

TAX PAID

Tax Withheld at Source by the Taxpayer	0,00
Tax Withheld at Source by Dependents	0,00
Taxpayer's Carnê-Leão	0,00
Dependents' Carnê-Leão	0,00
Complementary Tax	0,00
Tax Paid Abroad	0,00
Tax Withheld at Source (Law No. 11.033/2004)	0,00
Tax Withheld RRA	0,00
Total Tax Paid	0,00

Bank
Branch (without verification digit)
Account for Credit

NAME: RAFAEL LIMA DESSART

CPF: 692.225.760-04

ANNUAL ADJUSTMENT DECLARATION

INCOME TAX - INDIVIDUAL

TAX YEAR 2025

CALENDAR YEAR 2024

ASSET EVOLUTION

Assets and Rights on 12/31/2023	511.146,57
Assets and Rights on 12/31/2024	1.158.755,87
Encumbrances and Real Liabilities on 12/31/2023	0,00
Encumbrances and Real Liabilities on 12/31/2024	0,00

OTHER INFORMATION

Exempt and non-taxable income	12.671,06
Income subject to exclusive/definitive taxation	30.902,46
Taxable income - tax with suspended liability	0,00
Judicial Deposits of Tax	0,00
Tax Paid on Capital Gains	0,00
Tax Paid on Capital Gains Foreign Currency - Assets, Rights, and Financial Investments	0,00
Total tax withheld at source (Law No. 11.033/2004), as per the data provided by the taxpayer	0,00
Tax Paid on Variable Income	0,00
Donations to Political Parties and Candidates for Elective Office	0,00
Tax Payable on Capital Gain - Foreign Currency in Cash	0,00
Deferred Tax on Capital Gains	0,00
Tax Due on Capital Gains	0,00
Tax Due on Net Income from Variable Income	0,00
Tax Due on Capital Gains in Foreign Currency - Assets, Rights, and Financial Investments	0,00

I, André Vinícius Inacio Penna Mello, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: July 3, 2025

IDENTIFICAÇÃO DO CONTRIBUINTE

Nome:

RAFAEL LIMA DESSART

CPF:

692.225.760-04

Data de Nascimento:

20/08/1975

Possui cônjuge ou companheiro(a)?

Não

Era residente no exterior e passou a ser residente no Brasil em 2024?

Não

Houve alteração de dados cadastrais?

Não

Um dos declarantes é pessoa com doença grave ou portadora de deficiência física ou mental?

Não

Endereço:

RUA GENERAL OSORIO

Número:

1295

Complemento:

Bairro/Distrito:

CENTRO

Município:

CACAPAVA DO SUL

UF:

RS

CEP:

96570-000

DDD/Telefone:

(51) 9802-0840

E-mail:

DDD/Celular:

Natureza da Ocupação:

91 - Natureza da ocupação não especificada anteriormente

Ocupação Principal:

000 - Outras ocupações não especificadas anteriormente

Tipo de declaração:

Declaração de Ajuste Anual Original

Nº do recibo da última declaração entregue do exercício de 2024:

41.46.52.70.23-09

DEPENDENTES

Sem Informações

ALIMENTANDOS

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELO TITULAR					(Valores em Reais)	
NOME DA FONTE PAGADORA	REND. RECEBIDOS DE PES. JURÍDICA	CONTR. PREVID. OFICIAL	IMPOSTO RETIDO NA FONTE	13º SALÁRIO	IRRF SOBRE 13º SALÁRIO	
DIVERSAS FONTES	30.200,00	0,00	0,00	0,00		0,00
CNPJ/CPF:						
TOTAL	30.200,00	0,00	0,00	0,00		0,00

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELOS DEPENDENTES

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA FÍSICA E DO EXTERIOR PELO TITULAR

(Valores em Reais)

NIT/PIS/PASEP: 119.68948.75-3

RENDIMENTOS				
	TRABALHO NÃO ASSALARIADO	ALUGUÉIS, INCLUSIVE POR TEMPORADA	OUTROS	EXTERIOR
JAN	0,00	1.006,50	0,00	0,00
FEV	0,00	1.027,35	0,00	0,00
MAR	0,00	981,34	0,00	0,00
ABR	0,00	981,34	0,00	0,00
MAI	0,00	981,34	0,00	0,00
JUN	0,00	981,34	0,00	0,00
JUL	0,00	981,34	0,00	0,00
AGO	0,00	981,34	0,00	0,00
SET	0,00	981,34	0,00	0,00
OUT	0,00	981,34	0,00	0,00
NOV	0,00	981,34	0,00	0,00
DEZ	0,00	981,34	0,00	0,00
TOTAL	0,00	11.847,25	0,00	0,00

		DEDUÇÕES		CARNÊ-LEÃO	
	PREVIDÊNCIA OFICIAL	QUANTIDADE DE DEPENDENTES	PENSÃO ALIMENTÍCIA	LIVRO CAIXA	DARF PAGO CÓD. 0190
JAN	0,00	0	0,00	0,00	0,00
FEV	0,00	0	0,00	0,00	0,00
MAR	0,00	0	0,00	0,00	0,00
ABR	0,00	0	0,00	0,00	0,00
MAI	0,00	0	0,00	0,00	0,00
JUN	0,00	0	0,00	0,00	0,00
JUL	0,00	0	0,00	0,00	0,00
AGO	0,00	0	0,00	0,00	0,00
SET	0,00	0	0,00	0,00	0,00
OUT	0,00	0	0,00	0,00	0,00
NOV	0,00	0	0,00	0,00	0,00
DEZ	0,00	0	0,00	0,00	0,00
TOTAL	0,00		0,00	0,00	0,00

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA FÍSICA E DO EXTERIOR PELOS DEPENDENTES

Sem Informações

RENDIMENTOS ISENTOS E NÃO TRIBUTÁVEIS (Valores em Reais)

09. Lucros e dividendos recebidos					99,56
Beneficiário	CPF	CNPJ da Fonte Pagadora	Nome da Fonte Pagadora		Valor
Titular	692.225.760-04	50.926.955/0001-42	VULCABRAS S/A		50,00
Titular	692.225.760-04	08.294.224/0001-65	JHSF PARTICIPACOES S A		49,56
12. Rendimentos de cadernetas de poupança, letras hipotecárias, letras de crédito do agronegócio e imobiliário (LCA e LCI) e certificados de recebíveis do agronegócio e imobiliários (CRA e CRI)					180,82
Beneficiário	CPF	CNPJ da Fonte Pagadora	Nome da Fonte Pagadora		Valor
Titular	692.225.760-04	00.360.305/0001-04	CAIXA ECONOMICA FEDERAL		180,82
25. Restituição do imposto sobre a renda de anos-calendário anteriores					469,42
99. Outros					11.921,26
Beneficiário	CPF	CPF/CNPJ da Fonte Pagadora	Nome da Fonte Pagadora	Descrição	Valor
Titular	692.225.760-04	16.671.412/0001-93	FII TELLUS RIO BRAVO RENDA LOGISTICA	APLICACOES FINANCEIRAS EM FUNDOS DE INVESTIMENTO IMOBILIARIO	704,62
Titular	692.225.760-04	18.979.895/0001-13	CAPITANIA SECURITIES II FDO IN	APLICACOES FINANCEIRAS EM FUNDOS DE INVESTIMENTO IMOBILIARIO	962,99
Titular	692.225.760-04	36.642.219/0001-31	RIZA AKIN FII	APLICACOES FINANCEIRAS EM FUNDOS DE INVESTIMENTO IMOBILIARIO	714,26
Titular	692.225.760-04	42.537.579/0001-76	FI AGRO IMOBILIARIO CAPITANIA STRATEGIES	APLICACOES FINANCEIRAS EM FUNDOS DE INVESTIMENTO IMOBILIARIO	395,00
Titular	692.225.760-04	50.180.894/0001-17	DAYCOVAL D3 FUNDO DE INVESTIMENTO IMOBILIRIO	APLICACOES FINANCEIRAS EM FUNDOS DE INVESTIMENTO IMOBILIARIO	2.400,00
Titular	692.225.760-04	50.750.438/0001-65	RIZA DOMUS FII RZDS17	APLICACOES FINANCEIRAS EM FUNDOS DE INVESTIMENTO IMOBILIARIO	2.782,00
Titular	692.225.760-04	42.888.292/0001-90	FIAGRO JGP COT	APLICACOES FINANCEIRAS EM FUNDOS DE	2.949,14

				INVESTIMENTO IMOBILIARIO	
Titular	692.225.760-04	35.507.457/0001-71	VBI REITS FOF FUNDO DE INVESTIMENTO IMOBILIARIO	APLICACOES FINANCEIRAS EM FUNDOS DE INVESTIMENTO IMOBILIARIO	1.013,25
TOTAL					12.671,06

RENDIMENTOS SUJEITOS À TRIBUTAÇÃO EXCLUSIVA / DEFINITIVA	(Valores em Reais)
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06. Rendimentos de aplicações financeiras					30.042,44
Beneficiário	CPF	CNPJ da Fonte Pagadora	Nome da Fonte Pagadora		Valor
Titular	692.225.760-04	38.065.012/0001-77	FI IE CAPITANIA INFRA IE RF CREDITO PRIVADO		986,00
Titular	692.225.760-04	04.621.721/0001-70	XP TOP CP RF FI LONGO PRAZO		2.409,45
Titular	692.225.760-04	10.843.445/0001-97	XP REFERENCIADO FIF RF REFERENCIADO DI CP RL		1.892,23
Titular	692.225.760-04	12.154.412/0001-65	IBIUNA HEDGE FIC FIM		571,07
Titular	692.225.760-04	13.396.703/0001-22	VINCI VALOREM FIM		170,61
Titular	692.225.760-04	20.146.294/0001-71	CAPITANIA PREMIUM 45 FIRC CP LP		906,69
Titular	692.225.760-04	22.681.798/0001-17	AZ QUEST TERMO FIRF		937,40
Titular	692.225.760-04	22.918.359/0001-85	QUANTITAS FIC FIM MALLORCA		507,44
Titular	692.225.760-04	28.581.109/0001-89	VINLAND MACRO ADVISORY FIC FIM		328,52
Titular	692.225.760-04	29.732.926/0001-53	IBIUNA LONG SHORT ADVISORY FIC FIM		22,46
Titular	692.225.760-04	30.509.221/0001-50	V8 CASH FIC DE FI RF		3.198,47
Titular	692.225.760-04	33.520.968/0001-06	KAPITALO K10 ADVISORY FIC FIM		798,70
Titular	692.225.760-04	34.687.441/0001-25	VINLAND ATIVO ADVISORY FIF CIC RF LP RESP LIMITADA		862,68
Titular	692.225.760-04	38.026.926/0001-29	SPARTA TOP INFLACAO FIC FIF RF CP LP RESP LIMITADA		1.408,49
Titular	692.225.760-04	42.260.903/0001-51	RIZA STATHEROS FIC FIM CP		887,28
Titular	692.225.760-04	44.982.118/0001-38	RBR INFRA CREDITO FI INFRA RBRJ11		1.680,00
Titular	692.225.760-04	45.278.833/0001-57	TREND DI FIC FIRF SIMPLES		4.574,77
Titular	692.225.760-04	45.823.918/0001-79	TREND CASH FIC FIRF SIMPLES		0,07
Titular	692.225.760-04	46.098.897/0001-39	OCCAM LIQUIDEZ FIC FIF RF CP RL		4.142,52
Titular	692.225.760-04	50.697.486/0001-37	MAG HIGH GRADE PLUS 30 FIRF CP LP		1.241,20
Titular	692.225.760-04	36.368.869/0001-30	BLMR11		838,64
Titular	692.225.760-04	30.680.829/0001-43	NU FINANCEIRA S.A. - SOCIEDADE DE CREDITO, FINANCIAMENTO E I		64,61
Titular	692.225.760-04	33.264.668/0001-03	BANCO XP S/A		28,18
Titular	692.225.760-04	02.332.886/0001-04	DIRF 2024XP INVESTIMENTOS CCTVM S/A		1.584,96

10. Juros sobre capital próprio					322,44
Beneficiário	CPF	CNPJ da Fonte Pagadora	Nome da Fonte Pagadora		Valor
Titular	692.225.760-04	33.592.510/0001-54	VALE S.A.		88,49

Titular	692.225.760-04	60.746.948/0001-12	BANCO BRADESCO S A		233,95
13. Outros					537,58
Beneficiário	CPF	CPF/CNPJ da Fonte Pagadora	Nome da Fonte Pagadora	Descrição	Valor
Titular	692.225.760-04	74.267.170/0001-73	ICATU CAPITALIZACAO S/A	PREMIOS OBTIDOS EM CONCURSOS E SORTEIOS	537,58
TOTAL					30.902,46

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELO TITULAR (IMPOSTO COM EXIGIBILIDADE SUSPensa)

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELOS DEPENDENTES (IMPOSTO COM EXIGIBILIDADE SUSPensa)

Sem Informações

RENDIMENTOS TRIBUTÁVEIS DE PESSOA JURÍDICA RECEBIDOS ACUMULADAMENTE PELO TITULAR

Sem Informações

RENDIMENTOS TRIBUTÁVEIS DE PESSOA JURÍDICA RECEBIDOS ACUMULADAMENTE PELOS DEPENDENTES

Sem Informações

IMPOSTO PAGO / RETIDO

Sem Informações

PAGAMENTOS EFETUADOS				(Valores em Reais)
CÓD.	NOME DO BENEFICIÁRIO	CPF/CNPJ DO BENEFICIÁRIO	VALOR PAGO	PARC. NÃO DEDUTÍVEL
Titular				
11	GUSTAVO PESSOTA RODRIGUES	752.538.520-34	600,00	0,00
Descrição: ODONTOLOGO				
26	UNIMED PORTO ALEGRE COOPERATIVA MEDICA LTDA	87.096.616/0001-96	14.538,14	0,00
Descrição:				
70	CONSTRUTORA CELEGI LTDA.	00.156.111/0001-91	23.090,60	0,00
Descrição:				
71	GRPQA LTDA	16.788.643/0001-81	1.883,84	0,00
Descrição:				

DOAÇÕES EFETUADAS

Sem Informações

NOME: RAFAEL LIMA DESSART
CPF: 692.225.760-04
DECLARAÇÃO DE AJUSTE ANUAL

IMPOSTO SOBRE A RENDA - PESSOA FÍSICA
EXERCÍCIO 2025ANO-CALENDÁRIO 2024

DECLARAÇÃO DE BENS E DIREITOS (Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não
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GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM	
			31/12/2023	31/12/2024
01	11	APARTAMENTO 401 SITO A AVENIDA INDEPENDENCIA NO 687 EM PORTO ALEGRE/RS. ADQUIRIDO EM 1980.	69.799,24	69.799,24
105 - Brasil				
Inscrição Municipal (IPTU):				
Logradouro:			Nº:	
Comp.:			Bairro:	
Município:			UF:	CEP:
Área Total: 0,0			Data de Aquisição: / /	
Registrado no Cartório:				
01	13	TERRENO URBANO SEM BENFEITORIAS, CONSTITUIDO DO LOTE 39, DA QUADRA 0088, ANTIGA QUADRA D-21, SETOR 116, SITUADO NO BALNEARIO NOVA TRAMANDAI PLANO A, NA CIDADE DE TRAMANDAI/RS.	55.000,00	0,00
105 - Brasil				
Inscrição Municipal (IPTU):				
Logradouro:			Nº:	
Comp.:			Bairro:	
Município:			UF:	CEP:
Área Total: 0,0			Data de Aquisição: 08/12/2021	
Registrado no Cartório:				
02	99	AUTOMOVEL VOLKSWAGEN MODELO UP MOVE MCV. ANO/MODELO 2017/2018. ADQUIRIDO EM 27/02/2018 DE PAMPEIRO S.A COMERCIO DE AUTOMOVEIS, CNPJ 95.594.164/0001-09.	46.000,00	46.000,00
105 - Brasil				
04	01	SALDO EM POUPANCA NA CAIXA ECONOMICA FEDERAL	10.007,79	1.189,16
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ: 00.360.305/0001-04				
Banco: 104	Agência: 0641	Conta: 000584546625-0		
04	02	SALDO EM RDB NO NUBANK, AGENCIA 0001 CONTA 20151552-6	6,23	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ: 30.680.829/0001-43				

NOME: RAFAEL LIMA DESSART
CPF: 692.225.760-04
DECLARAÇÃO DE AJUSTE ANUAL

IMPOSTO SOBRE A RENDA - PESSOA FÍSICA
EXERCÍCIO 2025ANO-CALENDÁRIO 2024

DECLARAÇÃO DE BENS E DIREITOS (Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não
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GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM	
			31/12/2023	31/12/2024
04	02	APLICACAO EM RENDA FIXA NA XP INVESTIMENTOS CCTVM S/A	69.031,81	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ: 02.332.886/0001-04				
04	99	CAPITAL SOCIAL DE EMPRESA NO EXTERIOR DGEO ENTERPRISE LLC.	25.919,33	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ:				
06	01	INFORMADO POR CNPJ 02.332.886/0001-04	536,97	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ: 02.332.886/0001-04				
Banco: 102 Agência: 0001 Conta: 20015-3 Conta Pagamento? Não				
06	01	SALDO EM C/C NA XP INVESTIMENTOS CCTVM S/A	536,97	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ: 02.332.886/0001-04				
Banco: 102 Agência: 0001 Conta: 20015-3 Conta Pagamento? Não				
06	01	SALDO EM C/C NA CAIXA ECONOMICA FEDERAL	15.692,09	59.680,97
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ: 00.360.305/0001-04				
Banco: 104 Agência: 0454 Conta: 000058456625-0 Conta Pagamento? Não				
07	01	FUNDO DE INVESTIMENTOS NA XP INVESTIMENTOS	196.859,70	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 02.332.886/0001-04				

DECLARAÇÃO DE BENS E DIREITOS

(Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?

Não

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM	
			31/12/2023	31/12/2024
07	01	TREND DI FUNDO DE INVESTIMENTO EM COTAS DE FUNDOS DE INVESTIMENTO RENDA FIXA SIMPLES - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	101.222,47
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 45.278.833/0001-57				
07	01	KAPITALO K10 ADVISORY FUNDO DE INVESTIMENTO EM COTAS DE FUNDOS DE INVESTIMENTO MULTIMERCADO - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	10.799,45
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 33.520.968/0001-06				
07	01	IBIUNA LONG SHORT ADVISORY FIF - CLASSE DE INVESTIMENTO EM COTAS MULTIMERCADO -RESP LIMITADA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	10.022,49
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 29.732.926/0001-53				
07	01	CAPITANIA PREMIUM FUNDO DE INVESTIMENTO EM COTAS DE FUNDOS DE INVESTIMENTO RENDA FIXA CREDITO PRIVADO - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	10.914,01
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 20.146.294/0001-71				
07	01	SPARTA TOP INFLACAO FIC DE FIF RENDA FIXA CRED PRIV LONGO PRAZO - RESPONSABILIDADE LIMITADA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	31.408,36
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 38.026.926/0001-29				
07	01	VINLAND MACRO ADVISORY FUNDO DE INVESTIMENTO EM COTAS DE FUNDOS DE INVESTIMENTO MULTIMERCADO - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	11.118,23
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 28.581.109/0001-89				

NOME: RAFAEL LIMA DESSART
CPF: 692.225.760-04
DECLARAÇÃO DE AJUSTE ANUAL

IMPOSTO SOBRE A RENDA - PESSOA FÍSICA
EXERCÍCIO 2025 ANO-CALENDÁRIO 2024

DECLARAÇÃO DE BENS E DIREITOS (Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não
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GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM	
			31/12/2023	31/12/2024
07	01	XP REFERENCIADO FI FINANCEIRO RENDA FIXA REFERENCIADO DI CREDITO PRIVADO - RESPONSABILIDADE LIMITADA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	27.542,22
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 10.843.445/0001-97				
07	01	XP CORPORATE TOP CREDITO PRIVADO FI FINANCEIRO EM RENDA FIXA LONGO PRAZO - RESPONSABILIDADE LIMITADA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	28.616,37
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 04.621.721/0001-70				
07	01	MAG HIGH GRADE PLUS 30 FUNDO DE INVESTIMENTO RENDA FIXA CREDITO PRIVADO LONGO PRAZO - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	10.940,58
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 50.697.486/0001-37				
07	01	OCCAM LIQUIDEZ FIC DE FI FINANCEIRO RENDA FIXA CREDITO PRIV - RESPONSABILIDADE LIMITADA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	62.495,78
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 46.098.897/0001-39				
07	01	RIZA DOMUS FUNDO DE INVESTIMENTO IMOBILIARIO - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	20.000,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 50.750.438/0001-65				
07	01	QUANTITAS FUNDO DE INVESTIMENTO EM COTAS DE FUNDOS DE INVESTIMENTO MULTIMERCADO MALLORCA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	10.515,29
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 22.918.359/0001-85				

NOME: RAFAEL LIMA DESSART
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DECLARAÇÃO DE AJUSTE ANUAL

IMPOSTO SOBRE A RENDA - PESSOA FÍSICA
EXERCÍCIO 2025ANO-CALENDÁRIO 2024

DECLARAÇÃO DE BENS E DIREITOS (Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não
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GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM	
			31/12/2023	31/12/2024
07	01	DAO MULTIFACTOR LONG BIASED FUNDO DE INVESTIMENTO EM COTAS DE FUNDOS DE INVESTIMENTO MULTIMERCADO - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	10.000,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 40.920.066/0001-14				
07	01	TREND BOLSA AMERICANA DOLAR FUNDO DE INVESTIMENTO FINANCEIRO EM ACOES - RESPONSABILIDADE LIMITADA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	20.000,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 31.874.833/0001-05				
07	01	V8 CASH FUNDO DE INVESTIMENTO RENDA FIXA CREDITO PRIVADO - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	98.221,80
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 30.509.221/0001-50				
07	01	GUEPARDO INSTITUCIONAL FUNDO DE INVESTIMENTO FINANCEIRO EM COTAS DE FUNDOS DE INVESTIMENTO EM ACOES - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	10.000,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 08.830.947/0001-31				
07	01	HASHDEX BITCOIN FUNDO DE INVESTIMENTO MULTIMERCADO - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	20.000,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 36.986.672/0001-65				
07	01	IBIUNA HEDGE FIF - CLASSE DE INVESTIMENTO EM COTAS MULTIMERCADO - RESP LIMITADA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	10.754,46
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 12.154.412/0001-65				

NOME: RAFAEL LIMA DESSART
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IMPOSTO SOBRE A RENDA - PESSOA FÍSICA
EXERCÍCIO 2025 ANO-CALENDÁRIO 2024

DECLARAÇÃO DE BENS E DIREITOS (Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não
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GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM	
			31/12/2023	31/12/2024
07	01	TREND CASH CLASSE DE INVESTIMENTO EM COTAS DE CLASSES RENDA FIXA SIMPLES - RESP LIMITADA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	28.263,65
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 45.823.918/0001-79				
07	01	AZ QUEST TERMO FUNDO DE INVESTIMENTO RENDA FIXA LONGO PRAZO - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	11.213,27
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 22.681.798/0001-17				
07	01	VINLAND ATIVO ADVISORY FUNDO DE INVESTIMENTO FINANCEIRO CIC RENDA FIXA LONGO PRAZO - RESP LIMITADA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	11.108,70
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 34.687.441/0001-25				
07	01	RIZA STATHEROS FUNDO DE INVESTIMENTO EM COTAS DE FUNDOS DE INVESTIMENTO MULTIMERCADO CREDITO PRIVADO - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	21.929,37
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 42.260.903/0001-51				
07	01	VALORA IMOBILIARIO MULTISTRATEGIA PREMIUM FUNDO DE INVESTIMENTO IMOBILIARIO - FII - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	20.000,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 50.180.894/0001-17				
07	01	TREND BOLSA AMERICANA FUNDO DE INVESTIMENTO EM ACOES RESPONSABILIDADE LIMITADA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	20.000,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 31.145.826/0001-72				

DECLARAÇÃO DE BENS E DIREITOS

(Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?

Não

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM	
			31/12/2023	31/12/2024
07	01	RBR INFRA CREDITO FUNDO DE INVESTIMENTO EM COTAS DE FUNDOS INCENTIVADOS DE INVESTIMENTO DE INFRAESTRUTURA RENDA FIXA - INFORMADO POR CNPJ 02.332.886/0001-04	0,00	15.000,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 44.982.118/0001-38				
07	06	ICATU TITULO DE CAPITALIZACAO	21.756,44	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ do Fundo: 74.267.170/0001-73				
Negociados em Bolsa: Não				
08	01	QUANTIDADE DE 0.0000000054 BTC EM 31/12/2024 - INFORMADO POR CNPJ 50.459.025/0001-26	0,00	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ Custodiante: 50.459.025/0001-26				
Autocustodiante: Não				
08	02	QUANTIDADE DE 0.1592000000 AXS EM 31/12/2024 - INFORMADO POR CNPJ 29.242.868/0001-80	0,00	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ Custodiante: 29.242.868/0001-80				
Autocustodiante: Não Código Altcoin: 999				
08	03	QUANTIDADE DE 0.0000000031 USDT EM 31/12/2024 - INFORMADO POR CNPJ 50.459.025/0001-26	0,00	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				
CNPJ Custodiante: 50.459.025/0001-26				
Autocustodiante: Não Código Stablecoin: USDT				
08	99	QUANTIDADE DE 0.1990000000 NEAR EM 31/12/2024 - INFORMADO POR CNPJ 29.242.868/0001-80	0,00	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular CPF: 692.225.760-04				

NOME: RAFAEL LIMA DESSART
CPF: 692.225.760-04
DECLARAÇÃO DE AJUSTE ANUAL

IMPOSTO SOBRE A RENDA - PESSOA FÍSICA
EXERCÍCIO 2025ANO-CALENDÁRIO 2024

DECLARAÇÃO DE BENS E DIREITOS (Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não
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GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM	
			31/12/2023	31/12/2024
99	06	PREMIOS ACUMULADOS EM VGBL	0,00	350.000,00
105 - Brasil				
CNPJ: 29.408.732/0001-05				
TOTAL			511.146,57	1.158.755,87

DÍVIDAS E ÔNUS REAIS

Sem Informações

DOAÇÕES A PARTIDOS POLÍTICOS E CANDIDATOS A CARGOS ELETIVOS

Sem Informações

DEMONSTRATIVO DE ATIVIDADE RURAL - BRASIL

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Sem Informações

RECEITAS E DESPESAS - BRASIL

Sem Informações

APURAÇÃO DO RESULTADO - BRASIL

Sem Informações

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RECEITAS E DESPESAS - EXTERIOR

Sem Informações

APURAÇÃO DO RESULTADO - EXTERIOR

Sem Informações

MOVIMENTAÇÃO DO REBANHO - EXTERIOR

Sem Informações

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DEMONSTRATIVO DA APURAÇÃO DOS GANHOS DE CAPITAL

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RENTA VARIÁVEL - OPERAÇÕES COMUNS/DAYTRADE - TITULAR

GANHOS LÍQUIDOS OU PERDAS - JAN

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - FEV

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - MAR

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - ABR

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - MAI

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - JUN

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - JUL

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - AGO

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - SET

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - OUT

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - NOV

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - DEZ

Sem Informações

RENTA VARIÁVEL - OPERAÇÕES COMUNS/DAYTRADE - DEPENDENTES

Sem Informações

FUNDOS DE INVESTIMENTO IMOBILIÁRIO OU NAS CADEIAS PRODUTIVAS AGROINDUSTRIAIS - TITULAR

Sem Informações

FUNDOS DE INVESTIMENTO IMOBILIÁRIO OU NAS CADEIAS PRODUTIVAS AGROINDUSTRIAIS - DEPENDENTES

Sem Informações

DOAÇÕES DIRETAMENTE NA DECLARAÇÃO - ECA

Sem Informações

DOAÇÕES DIRETAMENTE NA DECLARAÇÃO - IDOSO

Sem Informações

RESUMO

TRIBUTAÇÃO UTILIZANDO AS DEDUÇÕES LEGAIS

RENDIMENTOS TRIBUTÁVEIS

Recebidos de Pessoa Jurídica pelo titular	30.200,00
Recebidos de Pessoa Jurídica pelos dependentes	0,00
Recebidos de Pessoa Física/Exterior pelo titular	11.847,25
Recebidos de Pessoa Física/Exterior pelos dependentes	0,00
Recebidos acumuladamente pelo titular	0,00
Recebidos acumuladamente pelos dependentes	0,00
Resultado tributável da Atividade Rural	0,00
TOTAL	42.047,25

DEDUÇÕES

Contribuições às previdências oficial e complementar fechada de que trata o § 15 do art. 40 da CF/1988 (até o limite do patrocinador)	0,00
Contribuição à previdência oficial (Rendimentos recebidos acumuladamente)	0,00
Contribuição à prev. complementar, inclusive o valor para as fechadas de que trata o § 15 do art. 40 da CF/1988 que exceder o limite do patrocinador	0,00
Dependentes	0,00
Despesas com instrução	0,00
Despesas médicas	15.138,14
Pensão alimentícia judicial	0,00
Pensão alimentícia por escritura pública	0,00
Pensão alimentícia judicial (Rendimentos recebidos acumuladamente)	0,00
Livro caixa	0,00
TOTAL	15.138,14

IMPOSTO DEVIDO

Base de cálculo do imposto	26.909,11
Imposto devido	0,00
Dedução de incentivo	0,00
Imposto devido I	0,00
Imposto devido RRA	0,00
Alíquota efetiva (%)	0,00
Total do imposto devido	0,00

IMPOSTO A RESTITUIR

	0,00
SALDO DE IMPOSTO A PAGAR	0,00

PARCELAMENTO

Valor da quota	0,00
Número de Quotas	0

INFORMAÇÕES BANCÁRIAS

Débito automático: NÃO

IMPOSTO PAGO

Imposto retido na fonte do titular	0,00
Imp. retido na fonte dos dependentes	0,00
Carnê-Leão do titular	0,00
Carnê-Leão dos dependentes	0,00
Imposto complementar	0,00
Imposto pago no exterior	0,00
Imposto retido na fonte (Lei nº 11.033/2004)	0,00
Imposto retido RRA	0,00
Total do imposto pago	0,00

Banco

Agência (sem DV)

Conta para crédito

EVOLUÇÃO PATRIMONIAL

Bens e direitos em 31/12/2023	511.146,57
Bens e direitos em 31/12/2024	1.158.755,87
Dívidas e ônus reais em 31/12/2023	0,00
Dívidas e ônus reais em 31/12/2024	0,00

OUTRAS INFORMAÇÕES

Rendimentos isentos e não tributáveis	12.671,06
Rendimentos sujeitos à tributação exclusiva/definitiva	30.902,46
Rendimentos tributáveis - imposto com exigibilidade suspensa	0,00
Depósitos judiciais do imposto	0,00
Imposto pago sobre Ganhos de Capital	0,00
Imposto pago Ganhos de Capital Moeda Estrangeira - Bens, direitos e Aplicações Financeiras	0,00
Total do imposto retido na fonte (Lei nº11.033/2004), conforme dados informados pelo contribuinte	0,00
Imposto pago sobre Renda Variável	0,00
Doações a Partidos Políticos e Candidatos a Cargos Eletivos	0,00
Imposto a pagar sobre o Ganho de Capital - Moeda Estrangeira em Espécie	0,00
Imposto diferido dos Ganhos de Capital	0,00
Imposto devido sobre Ganhos de Capital	0,00
Imposto devido sobre ganhos líquidos em Renda Variável	0,00
Imposto devido sobre Ganhos de Capital Moeda Estrangeira - Bens, direitos e aplic. financeiras	0,00

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**C.II - Second Prong -
Well-Positioned to
Advance the
Proposed Endeavor -
Authorship**

Rafael Lima Dessart

**Acurácia das
Coordenadas
Levantadas
Através de
Diferentes
Métodos e
Equipamentos.**

Accuracy of the Coordinates
Survey Through Different
Methods and Equipment.

**Acurácia das Coordenadas Levantadas
Através de
Diferentes Métodos e Equipamentos.**

*Accuracy of the Coordinates Survey Through
Different Methods and Equipment.*

Rafael Lima Dessart

ISBN: 9781719901888
Selo editorial: Independently published
432

GEOLOGY OF THE PAMPAS IN PHOTOGRAPHY



THE GEODIVERSITY OF THE GAÚCHO PAMPAS

GOMES, DESSART,
SPERANDIO & BORGES

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Marina Viana

July 07, 2025

GEOLOGIA DO PAMPA EM FOTOGRAFIA



A GEODIVERSIDADE DO PAMPA GAÚCHO

GOMES, DESSART,
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THE USE OF REMOTE SENSING TO DETECT AND MONITOR MEANDER MIGRATION IN THE MAMORECILLO RIVER, BOLIVIA, BETWEEN 1985 AND 2012

Natália Pinheiro Borges.^{1}; Diogo Gabriel Sperandio.¹; Cristiane Heredia Gomes.¹; Rafael Lima Dessart.¹*

¹ Federal University of Pampa, Caçapava do Sul, Brazil.

The morphology of a river channel, in spatiotemporal resolution, is subject to sedimentological processes of erosion, transport, and deposition. Processes that are more pronounced in meandering channels. This study aimed to analyze, identify, and discuss the spatial and temporal changes in the shape of meanders and the riverbed in a stretch of the Mamorecillo River between the provinces of Cochabamba and Santa Cruz – Bolivia. The river is extensively meandering — characteristic of the basin in which it is located, the Amazon Basin. This study uses remote sensing tools to discuss and correlate the changes that occurred in the channel over a 27-year period (1985–2012). As well as to understand the processes of meander migration this stretch of the Mamorecillo River has undergone through sedimentological, erosional, and depositional processes, thus contributing to an understanding of the dynamic processes active in the Amazon Basin. To carry out the study, the target area was delineated and geoprocessing tools such as software and aerial imagery were employed. The goal was to identify the main geomorphological features and discuss their changes throughout the study period. Recognizing the importance of studying meandering rivers for understanding their dynamics and function, this study seeks to correlate and assess the [inter]dependence (whether in terms of sediment or water input) that exists among the Mamorecillo River and the Chimoré and Ichilo rivers. Over the 27-year period, intensified erosive processes along the riverbanks were observed, as well as sediment deposition on the margins of the Mamorecillo River. In some analyzed portions, a gradual increase in meander amplitude was noted, to the point of causing channel constriction, which naturally led to a redefinition of the channel and, consequently, the river's flow path. It is also possible to identify locations where erosion processes are visibly leading to future channel constrictions, ultimately forming abandoned meander loops. As part of a larger dynamic system, the Mamorecillo River is influenced not only by autogenic factors but also by the Ichilo, Sacta, and Chimoré rivers, which feed into it. Being a meandering stretch, the river's hydrodynamics and hydro-geomorphology result in morphological processes marked by continuous erosion of the concave bank and greater deposition on the convex bank where point bars are located.

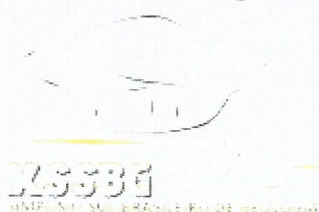
KEYWORDS: MEANDERS, REMOTE SENSING.

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:4154252508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 2, 2025.

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O USO DE SENSORIAMENTO REMOTO PARA DETECTAR E MONITORAR A MIGRAÇÃO DE MEANDROS NO RIO MAMORECILLO, BOLIVIA, ENTRE 1985 E 2012

Natália Pinheiro Borges.^{1}; Diogo Gabriel Sperandio.¹; Cristiane Heredia Gomes.¹; Rafael Lima Dessart.¹*

¹ Universidade Federal do Pampa, Caçapava do Sul, Brasil.

A morfologia de um canal, em resolução espaço-temporal, sofre com processos sedimentológicos de erosão, transporte e deposição. Processos que se mostram mais acentuados em canais meandrantess. No presente trabalho objetivou-se analisar, identificar e discutir as mudanças ocorridas em sequência espacial e temporal na forma dos meandros e de leito de um trecho do rio Mamorecillo entre as províncias de Cochabamba e Santa Cruz – Bolivia. Caracterizado por ser um rio extensamente meandrante – característica da bacia no qual o mesmo está inserido, a Bacia Amazônica. O presente estudo, por meio de recursos de sensoriamento remoto busca discutir e correlacionar as mudanças ocorridas no canal em um período de vinte e sete anos (1985-2012). Bem como, compreender os processos de migração dos meandros que este trecho do rio Mamorecillo sofreu através dos processos sedimentológicos, de erosão e deposição, e assim compreender os processos atuantes na Bacia Amazônica. Para a execução do trabalho, realizou-se a delimitação da área a ser estudada e aliou-se às ferramentas de geoprocessamento, tais como: softwares e imagens aéreas. Assim, buscou-se identificar as principais feições geomorfológicas e discutir as suas mudanças ao longo do período estudado. Deste modo, tendo conhecimento da eminente importância do estudo de rios meandrantess para compreensão de sua dinâmica e funcionamento, no presente trabalho buscamos correlacionar e verificar a [inter]dependência (seja ela no que diz respeito ao aporte sedimentológico e/ou hídrico) existente entre o rio Mamorecillo e os rios Chimoré e Ichilo. Durante o período de vinte e sete anos é possível observar a acentuação dos processos erosivos atuando sobre as margens, assim como processos de deposição de sedimentos nas margens do rio Mamorecillo. Em algumas porções analisadas se observa gradativo aumento na amplitude de meandros a ponto de causar o estrangulamento do canal, ocasionando de forma natural uma redefinição do canal e consequentemente do fluxo do rio. É possível identificar ainda, locais onde os processos de erosão atuam de forma evidente – a causar um futuro estrangulamento do canal, formando consequentemente, pedúnculos abandonados. Como parte de um sistema dinâmico maior, o rio Mamorecillo sofre influências não somente de fatores autocíclicos, mas também dos rios Ichilo, Sacta e Chimoré que o compõe. Caracterizado por ser um trecho meandrante do rio, a hidrodinâmica e hidrogeomorfologia de seu escoamento tem como resultados processos morfológicos caracterizados por uma erosão permanente de sua margem côncava e maior deposição em margens onde se localizam as barras de pontais (as margens convexas).

PALAVRAS-CHAVE: MEANDROS, SENSORIAMENTO REMOTO.

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GEOSCIENCES AND ROBOTICS: TEACHING VOLCANIC SYSTEMS TO CHILDREN

Natália Pinheiro Borges.¹; Diogo Gabriel Sperandio.¹; Cristiane Heredia Gomes.¹; Rafael Lima Dessart.¹

¹ Federal University of Pampa, Caçapava do Sul, Brazil.

Geosciences and Robotics: Teaching Volcanic Systems to Children was one of the projects developed by the Virtual Geological Museum of the Pampa (<http://porteiras.s.unipampa.edu.br/MVGP>), based on the understanding that geosciences are often taught in a fragmented manner in schools. The aim of the project was to introduce the concept of geology to children in the municipality of Caçapava do Sul, helping them understand and spark interest in local and general geology. The work was carried out through the integration of geology and robotics at the Federal University of Pampa, Caçapava do Sul campus, over the course of five days, with thirteen children aged between 10 and 12. This integration provided a way to enhance the children's engagement with geology, particularly since many already had an interest in robotics. Over the course of the activity, the formation of volcanic rocks, their locations within the municipality of Caçapava do Sul, their composition, and their relation to the constructed volcano were all explained. To support these explanations, the following resources were used: whiteboard drawings, interactive videos, rock samples, photographs of volcanic rock outcrops, and images of local tourist attractions. As the days went by, the volcano model began to take shape and become interactive, using easily accessible materials such as clay, MDF board, speakers, newspaper, and others. Throughout the activity, the children showed great interest, and with each step, new questions emerged, for example: "If there are volcanic rocks in our town, were there volcanoes here?" This was explained in a simplified and objective way: millions of years ago, the region where Caçapava do Sul is located was the site of intense volcanism during the period of continental drift. At the end of the interactive volcano activity, it was observed that the children were genuinely interested in the proposed topics, actively participating in discussions and conversations involving geology. Thus, it was clear that the activity stimulated curiosity, experimentation, and observational skills in the children. The learning process became playful and educational for everyone involved. Not only for the children, but also for those conducting the project, who came to appreciate the value of teaching, outreach, and research activities in Geosciences aimed at children in the Caçapava do Sul region.

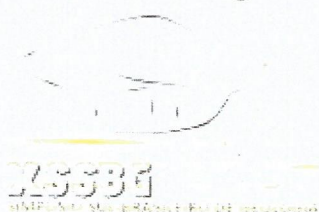
KEYWORDS: VOLCANO, ROBOTICS.

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GEOCIÊNCIAS E ROBÓTICA: ENSINANDO OS SISTEMAS VULCÂNICOS PARA CRIANÇAS

Natália Pinheiro Borges.^{1}; Diogo Gabriel Sperandio.¹; Cristiane Heredia Gomes.¹; Rafael Lima Dessart.¹*

¹ Universidade Federal do Pampa, Caçapava do Sul, Brasil.

Geociências e robótica: Ensinando os sistemas vulcânicos para crianças, foi um dos projetos desenvolvidos pelo Museu Virtual Geológico do Pampa (<http://porteiros.s.unipampa.edu.br/MVGP>), sabendo que a Geociências é vista de forma fragmentada nas escolas. O projeto tem por objetivo levar a noção de Geologia às crianças do município de Caçapava do Sul, fazendo-as entender e despertar o interesse pela Geologia local e em geral. O trabalho foi desenvolvido com a união de Geologia e Robótica, nas instalações da Universidade Federal do Pampa, no Campus Caçapava do Sul, durante 5 dias, com 13 crianças de idade entre 10-12 anos. Essa união foi o caminho para que as crianças pudessem se interessar ainda mais pela Geologia, sabendo que os mesmos já tinham uma afinidade pela Robótica. Durante os dias de atividade foi explicado como as rochas vulcânicas se formam, onde elas se encontram no município de Caçapava do Sul, do que são constituídas e suas relações com o vulcão construído. Para o auxílio das explicações foram utilizados: desenhos no quadro branco, vídeos interativos, amostra de rochas, fotos de afloramentos de rochas vulcânicas e pontos turísticos do município de Caçapava do Sul. Ao decorrer dos dias o vulcão foi criando forma e interatividade, com materiais de fácil acesso, como argila, placa de MDF, caixa de som, jornal e entre outros. Durante toda a atividade as crianças se mostraram interessadas, e a cada etapa um novo questionamento surgia, como: “Se existe rocha vulcânica em nosso município, existiram vulcões aqui?” E foi explicado de forma simplificada e objetiva que a milhões de anos atrás, onde Caçapava do Sul se localiza, foi cenário de intenso vulcanismo na época da separação dos continentes. Com o fim da atividade do vulcão interativo, notou-se que as crianças se mostraram interessadas aos assuntos propostos, contribuindo com discussões e conversas envolvendo Geologia. Assim, percebe-se que a atividade estimulou a curiosidade e senso experimental e de observações nas crianças. Com isso, o processo de aprendizado se tornou lúdico e didático para os envolvidos. Tanto para as crianças quanto para os envolvidos no projeto, que entenderam a importância das atividades de ensino, extensão e pesquisa, em Geociências, voltadas para as crianças da região de Caçapava do Sul.

PALAVRAS-CHAVE: VULCÃO, ROBÓTICA.

PRATICANDO SABERES E CONSTRUINDO IDEIAS EM GEOCIÊNCIAS

PRACTICING KNOWLEDGE AND BUILDING IDEAS ON GEOSCIENCE

RS - BRASIL

*Cristiane Heredia Gomes**

*Rafael Lima Dessart***

*Diogo Gabriel Sperandio****

*Juliana Gimenes *****

*Issacar Barroso******

*Caio Felipe de Oliveira Xavier******

*Catarine do Carmo Antunes******

RESUMO

Este trabalho objetiva apresentar a formação e atuação do Projeto de Extensão Universitária "Museu Virtual Geológico do Pampa" (Slipsee nº 0301315-UNIPAMPA), criado a partir do ideal de difundir o conhecimento geológico nas escolas da cidade de Caçapava do Sul - RS, e relatar as experiências e sentimentos oriundos dos participantes das atividades. Através da materialização de estruturas e acontecimentos geológicos, que envolvem não só o que aconteceu na região, mas episódios relacionados a todo o planeta Terra, foram realizadas pesquisas bibliográficas e oficinas. Para tanto, desenvolveram-se conversas informais, atividades práticas e registros fotográficos. Os dados obtidos indicaram que as atividades desenvolvidas no âmbito do Projeto despertaram sentimentos, sensações, interatividade, comunicação e interesse pela Geologia, implantando uma cultura geológica na comunidade local e demonstrando a importância da região no âmbito das Geociências. Percebeu-se que o aprendizado fora dos muros da escola, o contato dos alunos com o meio universitário são importantes ferramentas na educação e inclusão social.

Palavras-Chave: geologia; ensino; inclusão social; escola; extensão.

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The Contributions of the Monitoring: Program to the Education in Geoscience and in the Monitor's Academic Formation

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Abstract

Monitoring in the Caçapava do Sul campus, Federal University of Pampa (UNIPAMPA), intends to provide the development in academical activities and techniques inside the Geoscience field, in subjects offered in the curricula of Geophysics, Geology and Environmental and Sanitary Engineering programs. It is a student activity in which helping the teacher to intensify and assure the cooperation between the students and the monitor into the classroom and also in the basic activities on the University related to Teaching, Research and Extension is the main purpose. Therefore, it is possible to intensify the awareness of group importance in knowledge in general, as well as the familiarity with the differences, with conceptual contents, behaviour and proposed activities that are offered to develop in each student the responsibilities itself and with everybody else, always emphasizing the importance of working in a group. Teaching is inseparably related to learning. The goals are the development of conceptual abilities and classroom and laboratory techniques, as well as in extracurricular activities, in order to arouse in the students their interests about the subjects addressed. The main objective of monitoring work is to learn, not only learning about the subject, but also contents related to some procedures, preparing, experiment and, in the matter of fact, everything that is related to the knowledge about living and discussing in a group. Therefore, it is believed that the student/monitor should live this experience provided by teaching and integrate the practical experiences in his formation, in addition and as an improvement of his program.

Keywords

Monitoring, Learning, Teaching, Knowledge



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ANALYSIS OF ALKALINE EARTH METALS IN WATER IN CAÇAPAVA DO SUL - RS

Leonardo Rosa da Silva, Cristiane Heredia Gomes, Stener Camargo de Oliveira, Cassia de Sena Freitas, Caroline Vivian Mendes, Rafael de Lima Dessart

Abstract

The municipality of Caçapava do Sul is responsible for 80% of the limestone production in the state of Rio Grande do Sul. Limestone is a mineral product extracted from sedimentary rocks that contain more than 30% calcium carbonate. It is mainly used in the production of cement, lime, and chalk, as a fluxing agent, and in glass manufacturing. It is also widely used to correct soil pH for agricultural purposes. The extraction of limestone has seen a significant increase in Brazil in recent years, which has, in turn, led to serious environmental problems. In this context, the objective of this study is to investigate the composition of water in areas near the 1st district of Caçapava do Sul, specifically to analyze and quantify alkaline earth metals present in the samples. This study is part of a broader research project that also includes analysis of soil and atmospheric composition in the same regions. A total of 18 water samples were collected along the Mangueirão stream, in addition to four artesian well samples and one public supply sample (tap water), with the aim of determining total water hardness using EDTA, which is a cost-effective method that provides an important indicator for assessing drinking water quality. The chemical composition of water is directly related to its hardness, which is influenced by the surrounding soil or rock. Initially, a standard sample was prepared: 50 mL of a 0.01M CaCl₂ solution combined with approximately 1 mL of NH₄Cl/NH₄OH buffer solution adjusted to pH 10. Two drops of Eriochrome Black T indicator solution were added, and the solution was titrated with EDTA until the color changed from violet to blue, indicating the absence of alkaline earth metals. The same procedure was repeated using stream water, public supply water, and artesian well water, in separate tests, each consisting of 25 mL of sample, 25 mL of CaCl₂ solution, indicator, and buffer solution. The formula used to calculate total water hardness was: Hardness = V_{EDTA} × 1000 × M.M.CaCO₃/V_{water}, allowing results to be expressed in mg/L of CaCO₃. Additionally, the pH of all samples was measured and ranged between 6.0 and 9.5. The results, ranging from 40 mg/L to 242 mg/L, fall within the standards set by Ordinance No. 2,914 of 12-12-2011, issued by the Brazilian Ministry of Health, which sets the limit at 500 mg/L. It is concluded that all analyzed water samples are suitable for human consumption.

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ANÁLISE DE METAIS ALCALINOS TERROSOS NA ÁGUA EM CAÇAPAVA DO SUL-RS

Leonardo Rosa da Silva, Cristiane Heredia Gomes, Stener Camargo de Oliveira, Cassia de Sena Freitas, Caroline Vivian Mendes, Rafael de Lima Dessart

Resumo

O município de Caçapava do Sul é responsável por 80% da produção de calcário do estado do Rio Grande do Sul. O calcário é um produto mineral extraído de rochas sedimentares que contêm minerais com quantidades superiores a 30% de carbonato de cálcio. Ele é utilizado, principalmente, na produção de cimento, cal e giz, como fundente e fabricação de vidro. Tem larga utilização na correção do pH no solo para a agricultura. A extração de rochas calcárias vem tendo um aumento significativo no Brasil nos últimos tempos, o que resulta, consequentemente, sérios problemas ambientais. Neste contexto, busca-se como objetivos investigar a composição da água em localidades próximas ao 1º distrito de Caçapava do Sul, ou seja, analisar e quantificar metais alcalinos terrosos presentes nas amostras. Este estudo é parte integrante do projeto maior, que engloba ainda apurar a composição do solo e da atmosfera nas mesmas áreas. Foi coletado um total de 18 amostras de água ao longo do arroio Mangueirão, quatro de poço artesiano e uma de distribuição pública (da torneira) com o intuito de determinar a dureza total da água com EDTA, que é um método barato e que propicia um dado muito importante para a avaliação da qualidade da água para consumo humano. A sua composição química está proporcionalmente relacionada a sua dureza, sendo influenciada diretamente pelo solo ou rocha que a precede. Em um primeiro momento foi feita uma amostra padrão. Foram preparadas 50ml de solução 0,01M de CaCl_2 juntamente com cerca de 1ml de solução tampão de $\text{NH}_4\text{Cl}/\text{NH}_4\text{OH}$ até pH 10. Em seguida, à solução foram adicionadas duas gotas de solução indicadora de Negro de Eriocromo T. Titulou-se a solução com EDTA até a solução virar do violeta para o azul, sugerindo que não há presença de metais alcalinos terrosos. Repetiu-se o procedimento empregando água corrente (arroio), água de distribuição pública e água de poço artesiano, em estágios separados, totalizando assim, 25ml de amostra, 25ml de solução de CaCl_2 , indicador e solução tampão. Para o cálculo de determinação de dureza total foi utilizada a seguinte fórmula: $\text{dureza} = \text{VEDTA} \times 1000 \times \text{MM CaCO}_3/\text{Vágua}$. Assim, pode-se expressar o resultado na forma de mg/L de CaCO_3 . Além disto, em todas as amostras foi verificado o pH, que manteve-se em torno de 6 a 9,5. Os resultados obtidos entre 40 mg/L e 242 mg/L, enquadram-se nos padrões estabelecidos pela Portaria n° 2.914 de 12-12-2011 do Ministério da Saúde, onde o limite é de 500mg/L. Conclui-se que todas as amostras de água analisadas são próprias para consumo humano.

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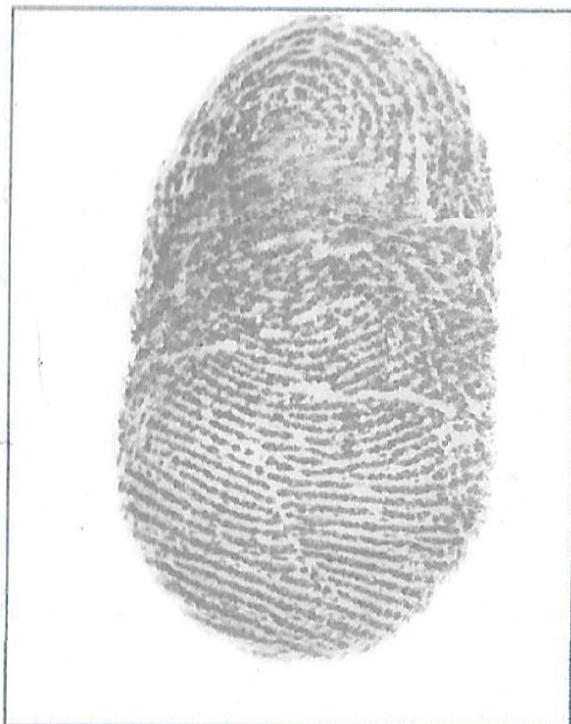
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São Paulo, May 21, 2025.

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RAFAEL LIMA DESSART
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There being nothing further, we hereby sign this notice.

Sincerely,

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Raphael Michels Fantinato de Moura.

Date: June 30, 2025.



São Paulo, 21 de Maio de 2025

Ilmo(a). Sr(a).

RAFAEL LIMA DESSART

R. CASEMIRO DE ABREU, 170 - 101

90420-000 - PORTO ALEGRE - RS

Prezado(a) Senhor(a),

É com satisfação que comunicamos à V.Sa. que a Comissão de Admissão de Sócios (CAS), em reunião de 21/05/2025, aprovou a admissão no Quadro de Associados da Sociedade Brasileira de Geologia na Categoria de Sócio Efetivo vinculado ao Núcleo Regional Rio Grande do Sul/Santa Catarina da SBG.

Sem mais para o momento, firmamo-nos.

Atenciosamente,

Murilo Brandão de Medeiros

Diretor Secretário

Diretoria Executiva

Biênio 2024-2025

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RAFAEL LIMA DESSART ▾

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Bylaw

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TITLE I - PRELIMINARY PROVISIONS

Chapter I - Name, Headquarters, and Purpose

Art. 1. The **BRAZILIAN GEOLOGICAL SOCIETY**, abbreviated as SBG, is an association founded on December 27, 1945, constituted as a private legal entity and non-profit organization, which does not distribute to its members, associates, board members, directors, employees, donors, or third parties any results, surpluses, operational gains—gross or net—

dividends, exemptions of any kind, shares, or portions of its assets obtained through its activities. All such resources shall be fully applied toward achieving its organizational purposes, either directly or through the creation of an endowment or reserve fund. The Society is therefore a cultural and public-interest entity, with its own legal identity, and is governed by these Bylaws and by applicable laws.

§ 1 The Brazilian Geological Society shall operate for an indefinite duration.

§ 2 In this document, besides the abbreviation SBG, the terms “Society” and “Association” shall also be used to refer to the Brazilian Geological Society.

§ 3 In this document, the term "Member" refers to individuals in the following categories: Full Member, Retired Full Member, Graduate Student Full Member, Undergraduate Student Member, Technical Student Member, Inclusion Program Student Member. The term "Associate" may also refer to Partner Members, Contributing Members, Honorary Members, Corporate Members, Affiliated Societies, and Allied Societies.

§ 4 Being exempt from membership fees does not constitute distribution of surpluses to members.

Art. 2. The Society is headquartered in São Paulo - SP, at Rua do Lago No. 562, Cidade Universitária - USP, ZIP Code 05508-080, with regional offices called Regional Chapters operating throughout Brazil.

Art. 3. The mission of the Brazilian Geological Society is to promote the advancement, dissemination, and development of the geosciences, applied geology, related research and technology, and the rational and sustainable management of nonrenewable mineral and energy resources, as well as water resources, always guided by principles of geoethics and geoconservation.

Art. 4. In line with its mission and the fields it encompasses, the Society shall pursue the following objectives, without limitation:

I - Bring together, in an associative manner, all those engaged in activities that contribute to the fulfillment of its mission;

II - Promote regular events for members to meet, discuss, and disseminate geosciences and related topics, including matters of general societal interest, especially the Brazilian Congress of Geology, held biennially except in exceptional circumstances like pandemics;

III - Foster exchanges with national and international geological societies;

IV - Encourage and support the improvement of education, training, professional development, and continuing education;

V - Collect and disseminate technical-scientific information;

VI - Maintain periodic and/or serial publications for the dissemination of national technical-scientific output and news of interest to the Society;

VII – Stimulate and promote the publication and distribution of books and other materials of scientific and educational interest;

VIII - Assist and collaborate with public and private institutions on matters related to its mission;

IX – Advocate for and take positions, including politically, on the use and management of nonrenewable mineral and energy resources and water resources, in accordance with ethical and sustainable geoconservation principles, as well as on science, technology, and education policy matters;

X – Advocate for, promote, and publicize the importance of the geosciences to Brazilian society, including through political expression when necessary;

XI - Support, encourage, and promote geoscience education at the basic education level and among the general public, fostering awareness and empathy toward our planet and its history.

Sole Paragraph: SBG shall adopt an emblem as defined by the Board of Directors and publish at least one technical-scientific journal under Board-approved guidelines.

Chapter II - Membership Structure

Art. 5. Members of the Brazilian Geological Society are classified as Full Member, Retired Full Member, Graduate Student Full Member, Undergraduate Student Member, Technical Student Member, Inclusion Program Student Member, Partner Member, Contributing Member, Honorary Member, and Corporate Member, defined as follows:

I - Full Member: Individuals holding a higher education degree in Geology, Geological Engineering, or in related areas as defined by Board resolution;

II - Retired Full Member: Full Members who are officially retired;

III - Graduate Student Full Member: Students currently enrolled in Graduate programs, without paid employment;

IV - Undergraduate Student Member: Undergraduate students in relevant fields as defined by Board resolution;

V - Inclusion Program Student Member: Students registered in Brazil's social assistance registry (CadÚnico), both technical and higher education;

VI - Partner Member includes:

a) Degree holders or students in other fields not covered by Board resolution but who are involved with geosciences, applied geology, or the study and exploration of nonrenewable mineral, energy, or water resources, as well as Technical Degree holders or students. Students must be enrolled;

- b) Basic education teachers (non-vocational) from public or private schools;
- c) Tour guides working in geotourism who are members of relevant associations;

VII - Contributing Member: Any supporter of geosciences not fitting other categories and interested in supporting SBG's mission;

VIII - Honorary Member: Title awarded as a distinction;

IX - Corporate Member: Legal entities, organizations, or associations – public or private – that register with SBG to support its mission;

X - Affiliated Society: Scientific, technical, or cultural societies with objectives aligned with SBG's mission and that maintain reciprocal agreements, with affiliation approved after a contract is signed by the parties and confirmed at the first subsequent Board of Directors meeting;

XI - Allied Society: A society not formally partnered with SBG, but which maintains cooperative technical and scientific exchange with it, under a signed agreement approved at the first subsequent Board of Directors meeting.

Sole Paragraph: The Honorary Member title may be awarded to individuals, Brazilian or foreign, who have notably contributed to the Society.

Art. 6. Except for Honorary Members and Corporate Members, affiliation in the other categories depends on the submission of an application form available on the Society's official website: www.sbgeo.org.br.

Art. 7. The title of Sponsor of SBG shall be granted to a public agency or legal entity that signs a contract or agreement with SBG to finance the publication, production, and distribution of publications or the organization of Society events

Chapter III - Rights and Duties of Members

Art. 8. The following are the rights of Full and Honorary Members:

I – to participate in, vote at, and be elected during the General Assembly, provided they are current with their annual dues, except as provided in Art. 11, item I;

II – to join and participate in Regional Chapters, Commissions, and other bodies of SBG, provided they are current with their annual dues;

III – to access the journals published by the Society;

IV – to request withdrawal from SBG at any time by contacting the Executive Board, including requesting the removal of all personal data from the Society's records;

V – to receive discounts on registration fees for events organized by the Society;

VI – to receive discounts on publications and products sold by the Society;

§1 A member will have their rights suspended if they fail to comply with Art. 11, item I.

§2 Student Members may not serve on the Executive Board or the boards of Regional Chapters.

Art. 9. The following are the rights of Undergraduate Student Members:

I – to participate in the General Assembly;

II – to vote in the General Assembly, provided they are current with their annual dues;

III – to access the journals published by the Society;

IV – to request withdrawal from SBG at any time by contacting the Executive Board, including requesting the removal of all personal data from the Society's records;

V – to receive discounts on publications and products sold by the Society;

VI – to receive discounts on registration fees for events promoted by the Society, as well as on books sold by the Society.

§1 A member will have their rights suspended if they fail to comply with Art. 11, item I.

§2 Student Members may not serve on the Executive Board or the boards of Regional Chapters.

Art. 10. The following are the rights of Partner, Supporting, and Corporate Members:

I – to participate in the General Assembly without voting rights, provided they are current with their annual dues;

II – to access the journals published by the Society;

III – to request withdrawal at any time by contacting the Executive Board, including requesting the removal of all personal data from the Society's records;

IV – (text to be revised at the March 2023 Assembly);

V – to receive discounts on publications and products sold by the Society.

Art. 11. The duties of members toward SBG are:

I – to pay the annual dues established in this Bylaws and relevant resolutions, except for Honorary Members;

II – to uphold the good name of the Society and support its initiatives.

§1 A member may be subject to penalties such as warning, suspension, or expulsion depending on the nature and severity of any violation of these Bylaws or any act that causes material or moral damage to SBG.

§2 Penalties will be imposed by the Executive Board, either on its own or upon request from the board of a Regional Chapter, with the right to appeal to the Board of Directors and, ultimately, the General Assembly, as set forth in Art. 19, item VI.

§3 A member who fails to pay dues for two consecutive years shall be expelled, considering that:

§4 Inclusion Student Members are exempt from annual dues.

§5 A member expelled for non-payment under §3 may be readmitted if they pay all outstanding dues, including those for the current year.

I – The member shall be notified and given 90 days to regularize their situation.

II – Failure to respond to the notification will result in removal from the Society's membership.

Art. 12. SBG members are not liable — individually or collectively, directly or indirectly, judicially or extrajudicially — for any obligations undertaken by the Society.

Chapter IV – Sources of Funding and Assets

Art. 13. The funding sources of SBG, which shall be used exclusively to achieve its social objectives, include:

I – annual membership dues;

II – donations, bequests, grants, and subsidies from any legal source, subject to legal and ethical considerations;

III – surpluses from sponsorships and registration fees collected from Congresses, Symposia, and other events promoted, held, and/or sponsored by SBG, regulated by Resolution;

IV – returns from financial investments;

V – returns from agreements and partnerships;

VI – revenue from the sale, assignment, or rental of products, publications, assets, and rights, as well as from any other activities or events.

Art. 14. Membership dues shall be defined by resolution of the Board of Directors. Collection methods shall be determined by the Executive Board.

Art. 15. Regional Chapters shall receive a share of the membership dues collected from their members, as defined and regulated by Resolution.

Art. 16. SBG's assets consist of all movable and immovable property, income, and acquired or received rights.

Art. 17. The following actions require approval by the Board of Directors:

I – entering into any loan agreement with a financial institution;

II – making or assuming capital expenditures involving fixed assets exceeding ten percent of the previous year's total revenue;

III – granting any guarantees or encumbrances on the Society's assets, including their sale or lease.

TITLE II – ORGANIZATION AND ADMINISTRATION

Chapter I – Deliberative Bodies

Art. 18. The deliberative bodies of the Brazilian Geological Society are the General Assembly and the Board of Directors.

Art. 42. SBG members are grouped into Regional Chapters, each encompassing a state or group of states in the Federation.

§1 The minimum number of members required to create and maintain a Regional Chapter shall be determined by resolution of the Board of Directors of SBG.

§2 Regional Chapters are governed by a standardized set of bylaws drafted by the Board of Directors or a commission designated by it.

§3 A member may choose, at any time, and upon documentation submitted to the SBG Secretariat, the Regional Chapter to which they wish to belong.

§4 In the event of the creation or dissolution of a Regional Chapter, the member shall be assigned to the chapter corresponding to their state of residence.

Art. 43. The Regional Chapter has administrative and financial autonomy and shall:

I – support and comply with the initiatives and instructions of the Executive Board and the resolutions of the Board of Directors;

II – keep the SBG Executive Board informed of its regional initiatives and decisions;

III – collaborate with the SBG Financial Office in collecting membership dues;

IV – use the SBG emblem in all communications, as approved by Resolution, prominently displaying the name of the Chapter;

V – not take national-level initiatives without prior approval of the SBG Executive Board;

VI – immediately inform the Executive Board of any legal matters that may hinder the Chapter's or SBG's operations;

VII – notify the Board of Directors of any proposed amendments to these Bylaws submitted by members, whether accepted or not by the Regional Chapter.

Art. 44. Each Regional Chapter shall be managed by a Board elected in accordance with the Chapter's internal rules.

§1 The election of the Chapter Board shall be held by November 30 of even-numbered years, following the rules established in the Chapter's bylaws, and the Board shall take office on the first business day of January following the election.

§2 If the election is not held (or its results are not reported to headquarters) by the last business day of December in even-numbered years, the President of the SBG Executive Board shall appoint a Provisional Board from among the Chapter's members to manage and represent it for a maximum of 90 days from the appointment, during which time a new election must be held according to the current bylaws.

§3 The additional representative of the Regional Chapter on the Board of Directors, per Art. 27, §1, shall be chosen from its Board members in accordance with its internal rules.

Art. 45. The duties of the Chapter Board include:

- I – managing the Chapter and taking necessary operational actions for effective administration;
- II – organizing regional, national, and international events in coordination with the Technical-Scientific Programming Office, aligned with the Society's mission, and supporting national and thematic events;
- III – enforcing regional compliance with statutory and regulatory rules and with decisions of the Board of Directors and the General Assembly;
- IV – maintaining the Chapter's financial balance;
- V – preparing and submitting to the Executive Board, within 120 days after the fiscal year ends:
 - a) the Annual Financial and Asset Statement, detailing income, expenses, and account balances;
 - b) the Chapter's Annual Activity Report;
 - c) adjustments to the current fiscal year's budget;
- VI – drafting and submitting to the Executive Board the budget forecast for the upcoming fiscal year at the November regular meeting of the Board of Directors.

Section III – Advisory Commissions and Advisory Committee

Subsection I – Advisory Commissions

Art. 46. SBG's Advisory Commissions include Thematic and Operational Commissions.

§1 Thematic Commissions shall be created by the Board of Directors for technical-scientific purposes, with responsibilities defined in their own internal regulations.

§2 Operational Commissions shall be designated by the Executive Board as needed to assist in carrying out its responsibilities.

Art. 47. Thematic Commissions have representation and voting rights on the Board of Directors under Art. 27, item V.

Art. 48. Representatives from graduate programs, *Stricto* or *Lato Sensu*, and scientific, technical, or cultural societies whose focus aligns with SBG, such as paleontology, geophysics, geochemistry, applied geology, and others, may join SBG's Thematic Commissions.

Subsection II – Advisory Committee

Art. 49. This body is intended to strengthen communication with the broader geoscience community and is composed of one elected representative from each of the following categories: Corporate Member, Graduate Student Full Member, Undergraduate Student Member, Technical Student Member, Inclusion Program Student Member, Partner Member, and Contributing Member.

§1 Representatives shall be elected with each new Executive Board term, through direct elections within each group, to be held before the first regular meeting of the new Board.

§2 Meetings shall be held remotely, on an extraordinary basis, whenever the Executive Board or the Board of Directors deems it essential to consult the Committee.

§3 Meetings may involve the full Committee or only the categories relevant to the topic under discussion.

§4 The Committee may only speak on behalf of the Society with authorization from the Board of Directors or the Executive Board.

TITLE III – ELECTIONS

Art. 50. Elections for elected positions shall be regulated by the Electoral Code drafted by the Board of Directors, in compliance with these Bylaws. Only members in good standing with the Treasury may vote.

§1 Full Members, Retired Full Members, Graduate Student Full Members, Undergraduate Student Members, Technical Student Members, and Inclusion Program Student Members may vote only if their dues are current as required by Art. 11, item I.

§2 A member's voting rights shall be suspended if the requirement in Art. 11, item I is not fulfilled.

§3 All positions, whether elected or appointed, shall be exercised without any form of compensation.

TITLE IV – SUPPLEMENTARY PROVISIONS

Chapter I – Amendments to the Bylaws

Art. 51. Any proposal to amend these Bylaws must follow a process regulated by the Board of Directors, subject to approval by the General Assembly, and must adhere to the following guidelines:

I – If proposed by one or more members, it must be reviewed by the Board of the Regional Chapter to which they belong;

II – If proposed by the Regional Chapter Board (or approved by that Board as per item I), it must be reviewed by the Board of Directors;

III – If proposed by the Board of Directors (or approved by it as per item II), it must be reviewed by a General Assembly called specifically for that purpose.

§1 If the proposal initiated by one or more members is not approved by the Regional Chapter Board as described in Art. 51, item I, they may appeal to the Board of Directors. If rejected again by the Board, the member(s) may request that a General Assembly be called, provided they assume all financial and operational costs of the process, especially as stated in Art. 51.

Note: add a new paragraph as §2 with the following wording.

§2 In the situation described in §1, if the proposal is also rejected by the Board of Directors, the member(s) may request that a General Assembly be called, provided they assume all financial and operational costs of the process, especially as stated in Art. 51.

§3 In the event the Board of Directors does not approve the amend in the situation described in item II of the main section of this article, the Regional Chapter that approved the proposal shall have the right to request that a General Assembly be called, provided it assumes all financial and operational costs of the process, especially as stated in Art. 51.

Art. 52. Once the General Assembly has been called to examine the proposed Bylaws amendment, an Operational Commission shall be appointed by the Executive Board to coordinate the process, pursuant to §1 of Art. 51, or appointed by the Board of Directors in the case described in §2 of that same Art. 51.

§1 The Executive Board shall notify all members of the proposed Bylaws amendment at least 50 days before the General Assembly convened for that specific purpose.

§2 Art. 21 of these Bylaws shall apply, meaning the General Assembly may deliberate with the participation of an absolute majority of voting members or, should that quorum not be met, the meeting may proceed with any number of members present, 30 minutes after the time established in the official notice.

Chapter II – Right to Appeal

Art. 53. Appeals may be filed within 30 (thirty) days of any decision:

I – from Commissions and Regional Chapter Boards to the SBG Executive Board;

II – from the Executive Board to the Board of Directors;

III – from the Board of Directors, in the final instance, to the General Assembly.

Sole Paragraph. Each appeal must correspond to the initiation of a specific process that is properly justified and documented.

Chapter III – Dissolution of the Society

Art. 54. SBG may be dissolved at any time, by resolution of the General Assembly convened specifically for this purpose, and the decision shall only be valid with the presence of at least two-thirds (2/3) of members with voting rights.

Sole Paragraph. Once the dissolution of the Society is approved, SBG's assets shall be transferred to nonprofit institutions dedicated to geosciences, in the manner indicated by the General Assembly, in compliance with the provisions of the Civil Code.

Chapter IV – General Provisions

Art. 55. SBG may award prizes to members or individuals who have stood out through their work in the geosciences or other related fields, in the name of the Society, following criteria established by the Board of Directors.

EFFECTIVE DATE

The present Bylaws, approved by the Extraordinary General Assembly, broadcasted online, held on December 16, 2022, shall take effect immediately, repealing any contrary provisions.

São Paulo – SP, December 16, 2022.

THIS BYLAWS WAS FILED UNDER NO. 923.232, REGISTERED UNDER NO. 788.031, AND RECORDED IN BOOK A OF REGISTRATION NO. 788.030 AT THE 3RD CIVIL REGISTRY OF LEGAL ENTITIES OF THE DISTRICT OF SÃO PAULO, CAPITAL CITY.

[UNRELATED NEWS AND EVENTS]

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: July 1, 2025.

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Estatuto

Versão do cartório em pdf

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TÍTULO I - PREMISSAS

Capítulo I - Denominação, Sede e Objetivo

Art. 1º A **SOCIEDADE BRASILEIRA DE GEOLOGIA**, tendo como sigla SBG, é uma associação fundada em 27 de dezembro de 1945, constituída na forma de pessoa jurídica de direito privado e sem fins lucrativos, que não distribui entre os seus sócios ou Associados, conselheiros, diretores, empregados, doadores ou terceiros eventuais resultados, sobras, excedentes operacionais, brutos ou líquidos,

dividendos,' isenções de qualquer natureza , participações ou parcelas do seu patrimônio, auferidos mediante o exercício de suas atividades, aplicando referidos recursos integralmente na consecução do respectivo objeto social, de forma imediata ou por meio da constituição de fundo patrimonial ou fundo de reserva, tendo, portanto, finalidade cultural e de utilidade pública, com natureza jurídica própria, e será regida pelo presente Estatuto e pela legislação em vigor.

§ 1º A Sociedade Brasileira de Geologia funcionará por prazo ilimitado.

§ 2º No texto do presente: Estatuto, além do uso da sigla SBG, as expressões Sociedade e Associação serão também utilizadas em substituição ao nome Sociedade Brasileira de Geologia.

§ 3º No texto do presente Estatuto, a expressão Sócio será utilizada para designar as pessoas físicas que compõem as categorias de sócios Sócio Efetivo Pleno, Sócio Efetivo Pleno Aposentado, Sócio Efetivo Pós-Graduando, Sócio Estudante de Graduação, Sócio Estudante de Nível Técnico, Sócio Estudante Inclusão, enquanto que a expressão Associado incluirá também as categorias de Sócios Parceiro, Sócio Colaborador, Sócio Honorário e Sócio Corporativo, de Sociedade Congênere e de Sociedade Conveniada.

§ 4º Eventual isenção de taxa de anuidade não configura distribuição de resultados aos Sócios.

Art. 2º A Sociedade tem sede e foro na cidade de São Paulo - SP, localizada na Rua do Lago nº 562 Cidade Universitária - USP | CEP 05508-080, e unidades regionais denominadas Núcleos Regionais abrangendo todo o território brasileiro.

Art. 3º A Sociedade Brasileira de Geologia tem como missão fomentar o conhecimento, a divulgação e o desenvolvimento das geociências, da geologia aplicada e da pesquisa e tecnologia correlata e a gestão racional e sustentável de recursos minerais, energéticos não renováveis e hídricos, levando em consideração os princípios geoéticos e geoconservacionistas.

Art. 4º Dentro dos temas abrangidos e vinculados à sua missão, a Sociedade terá por fim concretizar os seguintes objetivos, sem a eles se limitar:

I - congregar de forma associativa todos quantos exerçam atividades que concorrem para concretizar sua missão;

II - realizar periodicamente eventos para promover o encontro de seus Associados e, para debater e divulgar as geociências e demais temas correlatos, inclusive os de interesse da sociedade em geral, em especial o Congresso Brasileiro de Geologia de frequência bi-anual, salvo em casos excepcionais, tais como pandemias.

III - manter intercâmbio com sociedades nacionais e estrangeiras congêneres;

IV - Incentivar e concorrer para o aperfeiçoamento do ensino, do treinamento e da formação profissional e educação continuada;

V - colher e divulgar informações técnico-científicas;

VI - manter publicações periódicas e/ou seriadas para a divulgação da produção técnico-científica nacional e do noticiário de interesse da Sociedade;

VII - estimular e promover a edição e distribuição de livros e outros de interesse técnico-científico e didático;

VIII - assessorar e colaborar com órgãos públicos e entidades privadas em assuntos relacionados com a sua missão;

IX - defender e se manifestar, inclusive politicamente, sobre a utilização e a gestão dos recursos minerais, energéticos não renováveis e hídricos segundo o princípio sustentável da geoconservação e da geoética, bem como sobre temas relacionados com a política técnico-científica e educacional no país;

X - defender, fazer divulgar e se manifestar, inclusive politicamente, sobre a importância das geociências para a sociedade brasileira.

XI - apoiar, incentivar e promover a educação em geociências no ensino básico e para a sociedade em geral, estimulando o conhecimento com o fim de conservar e fortalecer a empatia sobre nosso planeta e sua história.

Parágrafo único. A SBG adotará um emblema com regras definidas pelo Conselho Diretor da Sociedade e editará, pelo menos, uma revista técnico-científica, segundo normas definidas pelo Conselho Diretor.

Capítulo II - Quadro Social

Art. 5º Os Associados da Sociedade Brasileira de Geologia são distribuídos nas categorias de Sócio Efetivo Pleno, Sócio Efetivo Pleno Aposentado, Sócio Efetivo Pós-Graduando, Sócio Estudante de Graduação, Sócio Estudante de Nível Técnico, Sócio Estudante Inclusão, Sócio Parceiro, Sócio Colaborador, Sócio Honorário e Sócio Corporativo assim definidas:

I - a categoria de Sócio Efetivo Pleno contempla os diplomados de nível superior da Geologia, da Engenharia Geológica e das áreas estabelecidas em resolução do Conselho Diretor;

II - a categoria de Sócio Efetivo Aposentado contempla o sócio da categoria Sócio Efetivo Pleno e que esteja na condição de aposentado;

III - a categoria de Sócio Efetivo Estudante de Pós-Graduação contempla profissional da categoria de Sócio Efetivo Pleno que esteja regularmente matriculado em Programa de Pós-Graduação e que não tenha vínculo empregatício remunerado;

IV - a categoria de Sócio Estudante de Graduação contempla estudante de graduação das áreas estabelecidas em resolução do Conselho Diretor e que esteja regularmente matriculado;

V - a categoria de Sócio Estudante Inclusão contempla estudantes de nível superior e técnico que estejam no Cadastro Único para Programas Sociais (CadÚnico);

VI - a categoria de Sócio Parceiro contempla:

a) o diplomado de nível superior e o estudante de nível superior, ambos de outras áreas do conhecimento não abrangidas pela resolução do Conselho Diretor e que exerça atividade ligada às geociências, à geologia aplicada ou ao estudo e exploração dos recursos minerais, energéticos não renováveis e hídricos, o diplomado técnico e o estudante de nível técnico. Os estudantes devem estar regularmente matriculados;

b) o professor de Educação Básica (não profissionalizante) que atue na rede municipal, estadual ou privada;

c) o condutor ou guia de roteiros geoturísticos que seja integrante de associação do segmento;

VII - a categoria de Sócio Colaborador abrange qualquer pessoa apreciadora das geociências, que não esteja contemplada nas categorias anteriores e que tenha interesse em apoiar a missão da SBG;

VIII - a categoria de Sócio Honorário contempla o agraciado com o título de Sócio Honorário;

IX - a categoria Sócio Corporativo contempla a pessoa jurídica, organização, associação ou entidade de natureza pública ou privada, inscrita na SBG com o intuito de apoiá-la no cumprimento de sua missão;

X - A categoria Sociedade Conveniada contempla qualquer Sociedades científicas, técnicas ou culturais de objetivos identificados com a missão da SBG e que com ela mantém intercâmbio e reciprocidade de condições, sendo a sua filiação aprovada após o contrato assinado pelas partes representadas e ter sido aprovado na primeira reunião subsequente do Conselho Diretor;

XI - a categoria Sociedade Congênere contempla uma Sociedade não conveniada com a SBG, mas que com ela mantém intercâmbio de cooperação técnico-científica, sendo a sua filiação mediante contrato assinado pelas partes representadas e aprovado na primeira reunião do Conselho Diretor subsequente.

Parágrafo único. O título de Sócio Honorário poderá ser conferido pela SBG à personalidade brasileira ou estrangeira que tenha contribuído de maneira relevante à missão da Sociedade.

Art. 6º Exceto para o Sócio Honorário e para a Sócio Corporativo, a filiação nas demais categorias depende de requerimento em formulário próprio disponível no site oficial da Sociedade em <http://www.sbgeo.org.br>.

Art. 7º Será conferido o título de Patrocinador da SBG ao órgão ou Pessoa Jurídica que celebre contrato ou convênio com a SBG para financiar a edição, produção e distribuição de publicação, ou a realização de evento da Sociedade.

Capítulo III - Direitos e Deveres do Associado

Art. 8º São direitos do Sócio Efetivo Pleno e do Sócio Honorário:

I - participar, votar e ser votado na Assembleia Geral desde que esteja quite com a anuidade do ano corrente, ressalvado o disposto no inciso I do art. 11;

II - integrar e participar dos Núcleos Regionais, de Comissões e demais órgãos da SBG, desde que esteja quite com a anuidade do ano corrente;

III - ter acesso aos periódicos editados pela Sociedade;

IV - solicitar à Diretoria o seu desligamento da SBG, a qualquer tempo; inclusive a remoção de todos os seus dados na secretaria da Sociedade;

V - ter descontos na inscrição dos eventos promovidos pela Sociedade;

VI - ter desconto nas publicações e produtos vendidos pela Sociedade;

§ 1º O Associado terá seus direitos suspensos no caso de não cumprimento do estabelecido no inc. I do art. 11.

§ 2º O Sócio Estudante não poderá integrar a Diretoria Executiva e diretorias de Núcleos Regionais.

Art. 9º São direitos dos Sócios Estudante de Graduação:

I - participar da Assembleia Geral;

II - votar na Assembleia Geral, desde que esteja quito com a anuidade do ano corrente;

III - ter acesso aos periódicos editados pela Sociedade;

IV - solicitar à Diretoria o seu desligamento da SBG, a qualquer tempo; inclusive a remoção de todos os seus dados na secretaria da Sociedade;

V - ter desconto nas publicações e produtos vendidos pela Sociedade;

VI - ter descontos na inscrição dos eventos promovidos pela Sociedade, bem como nos livros vendidos pela Sociedade.

§ 1º O Associado terá seus direitos suspensos no caso de não cumprimento do estabelecido no inc. I do art. 11.

§ 2º O Sócio Estudante não poderá integrar a Diretoria Executiva e diretorias de Núcleos Regionais.

Art. 10. São direitos dos Sócios Parceiro, Colaborador e Corporativo.

I - participar, sem direito a voto, da Assembleia Geral estando este quito com a anuidade do ano corrente;

II - ter acesso aos periódicos editados pela Sociedade;

III - solicitar seu desligamento, a qualquer tempo, à Diretoria da SBG, inclusive a remoção de todos os seus dados na secretaria da Sociedade;

IV - (redação a ser modificada na Assembléia de Março de 2023);

V - ter desconto nas publicações e produtos vendidos pela Sociedade.

Art. 11. São deveres do Sócio para com a SBG:

I - pagar a anuidade estabelecida neste Estatuto e resoluções pertinentes, exceto Sócio Honorário;

II - zelar pelo bom nome da Sociedade e prestigiar suas iniciativas.

§ 1º É passível da penalidade de advertência, suspensão e exclusão, conforme a natureza e gravidade de eventual infração, o Associado que assumir atitude ou manter conduta que fira este Estatuto e/ou que resulte em dano moral ou material à SBG.

§ 2º A penalidade será imposta pela Diretoria Executiva da SBG, por si ou por solicitação da Diretoria do Núcleo Regional, cabendo recurso ao Conselho Diretor e, em última instância, à Assembleia Geral como previsto no inc. VI do art. 19.

§ 3º Será excluído o sócio que deixar de pagar a anuidade por dois anos consecutivos, sendo que:

§ 4º O Sócio Estudante Inclusão terá isenção das anuidades.

§ 5º O associado excluído por ter deixado de pagar as anuidades, conforme o § 3º, poderá ser readmitido, desde que quite as contribuições em atraso e a do ano corrente

I - o Associado será notificado e terá prazo de 90 dias para manifestação e legalização da situação;

II - o não cumprimento da notificação acarretará a sua exclusão do quadro de Associados da entidade.

Art. 12. O associado da SBG não responde, isolada ou coletivamente, direta ou indiretamente, judicial ou extrajudicial, por obrigações assumidas pela Sociedade.

Capítulo IV - Fontes de Recursos e Patrimônio

Art. 13. As fontes de custeio da SBG, que serão aplicados exclusivamente para realização de seu objetivo social, são:

I - as anuidades dos Associados;

II - o recebimento de doações, legados, auxílios e subvenções de qualquer origem e espécie, respeitados aspectos legais e éticos;

III - os saldos dos patrocínios e inscrições arrecadadas para a realização de Congressos, Simpósios e outros eventos por ela promovidos, realizados e/ou patrocinados regulamentados por Resolução;

IV - de resultados de aplicações financeiras;

V - de resultados de convênios;

VI - da venda, cessão ou locação de produtos, impressos, bens e direitos e de quaisquer outras receitas resultantes de suas atividades e eventos.

Art. 14. O valor das anuidades dos Associados é definido pelo Conselho Diretor em Resolução, sendo a forma de arrecadação determinada pela Diretoria Executiva.

Art. 15. Os Núcleos Regionais terão uma quota-parte da arrecadação das anuidades dos respectivos sócios, na forma definida e regulamentada por Resolução.

Art. 16. O patrimônio da SBG será constituído pelos bens móveis e imóveis, rendas e direitos adquiridos ou recebidos.

Art. 17. Dependerá de aprovação do Conselho Diretor:

I - contratação de qualquer empréstimo junto à instituição financeira;

II - realização ou assunção de gastos com bens para o ativo fixo da Sociedade (despesas de capital) que sejam superiores a dez por cento da receita total do ano anterior;

III - outorga de qualquer garantia ou constituição de ônus reais sobre ativos da Sociedade, sua alienação ou arrendamento.

TÍTULO II - ORGANIZAÇÃO E ADMINISTRAÇÃO

Capítulo I - Dos Órgãos Deliberativos

Art. 18. São órgãos deliberativos da Sociedade Brasileira de Geologia: a Assembleia Geral e o Conselho Diretor.

Art. 42. Os Associados da SBG são agrupados em Núcleos Regionais, cada um deles abrangendo uma unidade da Federação ou um conjunto de unidades da Federação.

§ 1º O número mínimo de sócios necessário à criação e manutenção de um Núcleo Regional fica a critério e juízo do Conselho Diretor da SBG, através de resolução.

§ 2º Os Núcleos Regionais são regulados por Regimento de modelo padronizado, elaborado pelo Conselho Diretor da SBG ou por comissão por ele designada.

§ 3º Caberá ao Associado escolher, em qualquer momento e desde que documentado para secretaria da SBG, o Núcleo Regional ao qual se agregará.

§ 4º No caso de criação ou extinção de um Núcleo Regional o Associado será vinculado ao núcleo correspondente a unidade de Federação onde reside.

Art. 43. O Núcleo Regional tem autonomia administrativa e econômica, obrigando-se a:

I - prestigiar e acatar as iniciativas e instruções da Diretoria Executiva e as resoluções do Conselho Diretor da Sociedade;

II - manter a Diretoria Executiva da SBG informada das iniciativas e resoluções tomadas no âmbito regional;

III - colaborar com a Diretoria Financeira da SBG na cobrança das anuidades dos sócios;

IV - utilizar, em todos os seus informativos, emblema da SBG conforme aprovado em Resolução, com indicação destacada do nome do Núcleo;

V - não tomar iniciativa de âmbito nacional sem prévia anuência da Diretoria Executiva da Sociedade;

VI - comunicar imediatamente a Diretoria Executiva qualquer questão de natureza jurídica que venha a prejudicar o pleno funcionamento do Núcleo e da SBG;

VII - informar ao Conselho Diretor sobre qualquer proposta de alteração deste estatuto apresentada por sócio, rejeitada ou não pelo Núcleo Regional.

Art. 44. Cada Núcleo Regional será gerido por Diretoria, escolhida segundo Regimento do Núcleo;

§ 1º A escolha da Diretoria do Núcleo será realizada até 30 de novembro dos anos pares, obedecendo às normas estabelecidas no Regimento do Núcleo, e a posse da Diretoria ocorrerá no primeiro dia útil de janeiro após a eleição.

§ 2º Caso não seja realizada a escolha (ou a escolha não seja conhecida pela sede) até o último dia útil de dezembro dos anos pares, o Diretor Presidente da Diretoria Executiva da SBG nomeará uma Diretoria Provisória entre os Associados do Núcleo, que irá gerenciá-lo e representá-lo de forma interina pelo prazo máximo de 90 dias da data da nomeação, dentro do qual a escolha da Diretoria deverá ser procedida segundo as normas regimentais em vigor.

§ 3º Representante adicional do Núcleo Regional no Conselho Diretor, pela norma do art. 27, § 1º, será escolhido entre os membros de sua diretoria, na forma estabelecida no Regimento.

Art. 45. À Diretoria do Núcleo competirá as seguintes atribuições:

- I - administrar o Núcleo, adotando as medidas operacionais necessárias à sua boa gestão;
- II - organizar, em conformidade com a Diretoria de Programação Técnico-Científica, eventos em nível regional, nacional e internacional, voltados para o cumprimento da missão da Sociedade e apoiar eventos nacionais e temáticos;
- III - cumprir e fazer cumprir no âmbito regional as normas estatutárias e regimentais assim como as resoluções do Conselho Diretor e da Assembleia Geral;
- IV - zelar pelo equilíbrio econômico-financeiro do Núcleo;
- V - elaborar e apresentar à Diretoria Executiva, até 120 (cento e vinte) dias após o encerramento do ano fiscal:
 - a) Balanço Financeiro e Patrimonial Anual, constando as receitas, despesas e saldos das contas;
 - b) Relatório Anual de atividades do Núcleo;
 - c) elaborar ajuste na previsão orçamentária do exercício financeiro corrente;
- VI - elaborar e apresentar à Diretoria Executiva a previsão orçamentária para o exercício financeiro seguinte na reunião ordinária do Conselho Diretor que ocorre em novembro.

Seção III - Das Comissões Assessoras e do Comitê Assessor

Subseção I - Das Comissões Assessoras

Art. 46. As Comissões Assessoras da SBG compreendem as Temáticas e as Operacionais.

§ 1º As Comissões Temáticas serão criadas pelo Conselho Diretor com finalidades Técnico-Científicas e com atribuições fixadas em Regimento Interno próprio.

§ 2º Comissões Operacionais serão designadas pela Diretoria Executiva sempre que necessário para auxiliá-la no cumprimento de suas atribuições.

Art. 47. As Comissões Temáticas têm representação e direito a voto no Conselho Diretor conforme inc. V do art. 27.

Art. 48. Representantes de Programas de pós-graduação *Stricto* ou *Lato Sensu* e de Sociedade científica-técnico-cultural de temática identificada com a SBG, tais como das áreas de paleontologia, geofísica, geoquímica, geologia aplicada e outras, podem integrar as Comissões Temáticas da SBG.

Subseção II - Do Comitê Assessor

Art. 49. O órgão tem função de fortalecer a comunicação com a comunidade geocientífica ampliada e é composto por um representante eleito de cada uma das categorias: Sócio Corporativo, Sócio Efetivo Estudante de Pós-Graduação, Sócio Estudante de Graduação, Sócio Estudante de Nível Técnico, Sócio Estudante Inclusão, Sócio Parceiro e Sócio Colaborador.

§ 1º Os representantes serão eleitos a cada nova gestão da Diretoria Executiva, a partir de eleição direta entre os pares, a ser convocada até a primeira reunião ordinária da nova Diretoria.

§ 2º As reuniões serão realizadas extraordinariamente, de forma remota, sempre que surgir uma demanda em que a Diretoria Executiva ou o Conselho Diretor julgue essencial ouvir esse Comitê.

§ 3º A convocação poderá ser de todo o Comitê ou de apenas das categorias relacionadas com o tema da demanda.

§ 4º O Comitê só poderá se manifestar em nome da Sociedade mediante a autorização do Conselho Diretor ou da Diretoria Executiva.

TÍTULO III - ELEIÇÕES

Art. 50. As eleições aos cargos eletivos serão regulamentadas pelo Código Eleitoral elaborado pelo Conselho Diretor, respeitados os termos deste Estatuto, e delas tomarão parte os sócios quites com a Tesouraria.

§ 1º Os Sócio Efetivo Pleno, Sócio Efetivo Pleno Aposentado, Sócio Efetivo Pós-Graduando, Sócio Estudante de Graduação, Sócio Estudante de Nível Técnico, Sócio Estudante Inclusão exercerão direito de votar somente se estiverem quites com a obrigação prevista no inc. I do art. 11.

§ 2º O direito de voto do Sócio fica suspenso no caso de não cumprimento do estabelecido no inc. I do art. 11.

§ 3º Todo e qualquer mandato será exercido sem qualquer tipo remuneração, seja ele eletivo ou resultante de nomeação.

TÍTULO IV - DISPOSIÇÕES COMPLEMENTARES

Capítulo I - Reforma de Estatuto

Art. 51. Qualquer proposta de reforma deste Estatuto deverá seguir processo a ser regulamentado pelo Conselho Diretor, *ad referendum* da Assembleia Geral, devendo atender as seguintes diretrizes:

I - se apresentada por iniciativa de Sócio(s), a proposta deverá ser examinada pela Diretoria do Núcleo Regional a que esteja(m) vinculado(s);

II - se por iniciativa da Diretoria do Núcleo Regional (ou se aprovada pela mesma Diretoria na situação prevista no inc. I deste artigo), a proposta deverá ser examinada pelo Conselho Diretor;

III - se por iniciativa do Conselho Diretor (ou se aprovada pelo mesmo Conselho na situação prevista no inc. II deste artigo), a proposta deverá ser examinada por Assembleia Geral especificamente reunida para este fim.

§ 1º Quando a proposta de reforma estatutária apresentada por iniciativa de Sócio(s) não for aprovada pela Diretoria do Núcleo Regional conforme ART 51º inciso I (a), este(s) sócio(s) terá(ão) direito de apresentar um recurso a proposta ao Conselho Diretor. Caso rejeitada também pelo Conselho Diretor da SBG, este(s) sócio(s) poderá(ão) exigir a convocação da Assembleia Geral, desde que assumam os custos financeiro e operacional do processo, especialmente relativo ao art. 51.

Nota: acrescenta novo parágrafo como § 2º com redação seguinte.

§ 2º Na hipótese do § 1º deste artigo, se a proposta também não for aprovada pelo Conselho Diretor da SBG, o sócio(s) poderá(ão) exigir a convocação de Assembleia Geral, desde que assumam os custos financeiro e operacional do processo, especialmente relativo ao art. 51.

§ 3º Na hipótese do Conselho Diretor não aprovar a reforma na situação do inciso II do caput deste artigo, a Diretoria do Núcleo Regional que aprovou a proposta terá direito de exigir a convocação da Assembleia Geral, desde que assuma os custos financeiro e operacional do processo, especialmente no que se refere ao art. 51.

Art. 52. Decidida pela convocação da Assembleia Geral para exame de reforma estatutária, será nomeada uma Comissão Operacional pela Diretoria Executiva para coordenar o processo, conforme o § 1º do art. 51, ou nomeada pelo Conselho Diretor no caso do § 2º do mesmo art. 51.

§ 1º A Diretoria Executiva dará conhecimento aos associados da proposta de reforma do estatuto até 50 dias da Assembleia Geral convocada para esse fim específico.

§ 2º Aplica-se no caso o art. 21 deste Estatuto, ou seja, a Assembleia Geral delibera com a participação da maioria absoluta dos sócios com direito a voto, ou, constatado número menor de sócios presentes, a reunião poderá ser efetivada com qualquer número de sócios, pelo menos 30 minutos após a hora estabelecida no edital.

Capítulo II - Direito de Recurso

Art. 53. Caberá recurso, decorridos no máximo 30 (trinta) dias de qualquer decisão:

I - de Comissões e Diretorias de Núcleos Regionais à Diretoria Executiva da SBG;

II - da Diretoria Executiva, ao Conselho Diretor;

III - do Conselho Diretor, em última instância, à Assembleia Geral.

Parágrafo único. Cada recurso deve corresponder à abertura de processo específico que será devidamente justificado e instruído.

Capítulo III - Dissolução da Sociedade

Art. 54. A SBG poderá ser dissolvida, a qualquer tempo, por deliberação da Assembleia Geral especificamente convocada para tal fim, e a decisão de dissolução somente poderá ser tomada com a presença de, no mínimo, 2/3 dos sócios com direito a voto.

Parágrafo único. Aprovada a dissolução da Sociedade, o patrimônio da SBG será destinado a instituições sem fins lucrativos que se dediquem às geociências e na forma indicada pela Assembleia Geral, observado o disposto no Código Civil.

Capítulo IV - Disposições Gerais

Art. 55. A SBG concederá prêmios a Associados ou personalidades que tenham se destacado pela sua atuação nas geociências ou nas demais áreas abrangidas pela missão da Sociedade, segundo regulamentação definida pelo Conselho Diretor.

VIGÊNCIA

O presente Estatuto, aprovado pela Assembleia Geral Extraordinária com transmissão via internet (on-line), realizada em 16 de dezembro de 2022, entrará em vigor imediatamente, revogadas quaisquer disposições em contrário.

São Paulo - SP, 16 de dezembro de 2022.

ESTE ESTATUTO FOI PROTOCOLADO SOB O Nº 923.232, TENDO SIDO REGISTRADO SOB O Nº 788.031 E AVERBADO NO REGISTRO Nº 788.030 NO LIVRO DE REGISTRO A DO 3º OFICIAL DE REGISTRO CIVIL DE PESSOAS JURÍDICAS DA COMARCA DE SÃO PAULO, CAPITAL.

Notícias

Ver+ (<https://www.sbgeo.org.br/home/news>)

14/05/2025

Nota Técnica: O significado de cavernas com dimensões notáveis na avaliação do grau de relevância das cavidades naturais subterrâneas (<https://www.sbgeo.org.br/home/news/1064>)

06/05/2025

NOTA DE PESAR! PROF. DR. ANTONIO CARLOS ARTUR (<https://www.sbgeo.org.br/home/news/1063>)

23/04/2025

X GEOQUANTI - CHAMADA DE TRABALHOS (<https://www.sbgeo.org.br/home/news/1062>)

15/04/2025

PROJETO DE LEI DOS METEORITOS É APROVADO NA COMISSÃO DE CONSTITUIÇÃO E JUSTIÇA E DE CIDADANIA DA CÂMARA DOS DEPUTADOS. (<https://www.sbgeo.org.br/home/news/1061>)

08/04/2025

Nota Técnica Institucional da SBG: Fortalecimento da Agência Nacional de Mineração (ANM): uma medida urgente e estratégica para o Brasil (<https://www.sbgeo.org.br/home/news/1060>)

14/03/2025

8º SIMPÓSIO BRASILEIRO DE GEOLOGIA DO DIAMANTE (<https://www.sbgeo.org.br/home/news/1059>)

Eventos

Ver+ (<https://www.sbgeo.org.br/home/events>)

26 A 30
MAI

XIX SNET / 18º GEOSUDESTE (<https://snet-geosudeste.com.br/>)
CAMPINAS - SP - CENTRO DE CONVENÇÕES UNICAMP



SOUTHERN BRAZILIAN PROFESSIONAL ASSOCIATION OF GEOLOGISTS

MEMBERSHIP CONFIRMATION CERTIFICATE

Association of Geology Professionals of Rio Grande do Sul – APSG
CNPJ: 87.752.135/0001-91

Porto Alegre, 05/26/2025

The **Association of Geology Professionals of Rio Grande do Sul – APSG**, through its President, hereby certifies for all due purposes that:

Name: Rafael Lima Dessart
CPF: 692.225.760-04
CREA-RS: 126851

is a **duly registered member of this Association for the year 2025**, having also paid the **annual membership fee**, as confirmed by the administrative records of the Association's treasury.

This certificate is issued at the request of the member to prove institutional affiliation and compliance with membership obligations, and may be used whenever necessary, within the limits of its validity and purpose.

Sincerely,

Geologist Daniele Di Giorgio

President – Southern Brazilian Professional Association of Geologists (APSG)

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: June 30, 2025.



ASSOCIAÇÃO PROFISSIONAL SUL-BRASILEIRA DE GEÓLOGOS

ATESTADO DE VÍNCULO ASSOCIATIVO

Associação dos Profissionais de Geologia do Rio Grande do Sul – APSG

CNPJ: 87.752.135/0001-91

Porto Alegre, 26/05/2025

A Associação dos Profissionais de Geologia do Rio Grande do Sul – APSG, por meio de sua Presidência, **atesta para os devidos fins** que:

Nome: Rafael Lima Dessart

CPF: 692.225.760-04

CREA-RS: 126851

é **sócio regularmente inscrito nesta Associação no exercício de 2025**, tendo inclusive efetuado o pagamento da **contribuição anual de associado**, conforme registros administrativos da tesouraria da entidade.

Este atestado é emitido a pedido do associado, para fins de comprovação de vínculo institucional e adimplência com as obrigações associativas, podendo ser utilizado sempre que necessário, nos limites da sua validade e finalidade.

Atenciosamente,

Geólogo Daniele Di Giorgio

Presidente – Associação Profissional Sul-brasileira de Geólogos (APSG)



SOUTHERN BRAZILIAN PROFESSIONAL ASSOCIATION OF GEOLOGISTS – APSG

BYLAWS OF THE SOUTHERN BRAZILIAN PROFESSIONAL ASSOCIATION OF GEOLOGISTS – APSG

Chapter I

Corporate Name and Legal Nature

Art. 1 – The Southern Brazilian Professional Association of Geologists – APSG is a non-profit association, established in 1970, with an indefinite term of duration, created to coordinate, defend, and represent Geologists and Geological Engineers in the State of Rio Grande do Sul, it seeks to foster class solidarity and alignment with national interests, and is registered with the Civil Registry of Legal Entities under No. 5681. The Association is governed by these Bylaws, approved at the General Assembly held on December 14, 2009.

Sole Paragraph – For these Bylaws, the Southern Brazilian Professional Association of Geologists shall hereinafter be referred to simply as **APSG**.

Chapter II

Headquarters

Art. 2 – **APSG** shall have its headquarters and legal venue in the city of Porto Alegre, State of Rio Grande do Sul, at Rua Otávio Rocha, No. 22, 8th Floor, and may establish branches or agencies in other locations.

Chapter III

Objectives

Art. 3 – The objectives of **APSG** are:

- a) To provide Geologists and Geological Engineers in Rio Grande do Sul with the necessary means to defend the profession of Geologist and Geological Engineer;
- b) To ensure compliance with professional conduct standards within its jurisdiction;
- c) To advocate for the expansion of the job market, fair and adequate compensation, by engaging with governmental, semi-governmental, autonomous, and private entities, promoting the profession, proposing agreements, and petitioning government bodies—federal, state, or municipal—for the staffing of positions currently not occupied by geologists, as well as for the creation of geologist positions within the technical staff of public and private institutions that require such professionals;
- d) To advocate before public authorities for planning, legislation, and measures aimed at Brazil's development;
- e) To collaborate with government authorities as a technical advisory body in the study and resolution of issues related to the professional category of geologist and geological engineer;
- f) To promote unity with related professions;
- g) To encourage the teaching and advancement of geological sciences and advocate for curricula more aligned with national realities;
- h) To represent, before administrative and judicial authorities, the individual and collective interests of its members whenever related to the geologist profession, as well as to assist in the amicable resolution of issues related to the profession;
- i) To organize congresses, conferences, seminars, exhibitions, publications, or other events related to the geologist and geological engineer professions within its jurisdiction;
- j) To promote the professional development of geologists through lectures, courses, and other initiatives;
- k) To establish and maintain job placement agencies for the benefit of its members.



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- l) To support and promote its members before national and international organizations in matters related to scholarships and internships;
- m) To promote the protection of the environment and the economic and social order.

Art. 4 – The operation of **APSG** shall be subject to the condition of maintaining its character as a technical, cultural, and professional entity, refraining from any political, partisan, religious, ideological, or philosophical propaganda, as well as from endorsing or supporting candidacies for elective offices unrelated to the Association, except in cases where such involvement is necessary to professional interests, the Association shall accept all geologists and geological engineers regardless of political ideologies, religious beliefs, or racial backgrounds.

- a) To strictly observe the law and the principles of morality and civic duty;
- b) The positions on the Board of Directors shall not be remunerated.

Chapter IV **Members**

Art. 5 – Any individual who belongs to the professional category of geologist or geological engineer, who resides in or carries out professional activities, in whole or in part, in the State of Rio Grande do Sul, and who holds a degree from any Brazilian institution of higher education qualified to grant the degrees of geologist or geological engineer, as well as those who have graduated from equivalent foreign institutions with diplomas officially revalidated in Brazil, shall have the right to apply for membership in **APSG**.

Sole Paragraph – **APSG** recognizes the following categories of members:

- 1. Founding Members;
- 2. Regular Members;
- 3. Corporate Members;
- 4. Honorary Members;
- 5. Meritorious Members; and
- 6. Aspiring Members.

Art. 6 – Founding Members shall be those who participated in the Founding Assembly of **APSG**, whose signatures appear in the first meeting minutes.

Art. 7 – Regular Members shall be all geologists who reside in or carry out professional activities in the State of Rio Grande do Sul, provided that they formally apply for membership in **APSG**.

Paragraph 1 – Corporate Members shall be all geologists who reside in or carry out professional activities in the State of Rio Grande do Sul.

Art. 8 – Honorary Members shall be Brazilian or foreign geologists, or institutions of recognized scientific or technical merit, who have rendered significant services to the profession, whether in technical-scientific, socio-economic, or legal aspects, as determined by the Board of Directors and ratified by the General Assembly.

Art. 9 – Meritorious Members shall be individuals or institutions that have rendered significant services to **APSG** or who have made donations or bequests equal to or greater than five times the minimum wage in effect in the City of Porto Alegre at the time of the donation, this title shall be granted by the Board of Directors and ratified by the General Assembly.

Art. 10 – Aspiring Members shall be students in the final year of academic programs for geologists or geological engineers, admitted to the membership upon submission of a signed application by the candidate, deliberation by the Board of Directors, and ratification by the General Assembly.



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Chapter V
Rights and Duties of Members

Art. 11 – The rights of regularized founding or regular members are:

- a) To participate in **APSG** activities, following its Bylaws and regulations;
- b) To take part in, vote, and be elected to leadership positions at **APSG** General Assemblies, following the provisions of the Bylaws;
- c) To propose to the Board of Directors the discussion of topics and matters of interest to the professional class;
- d) To join any committee to which they have been appointed by the Board of Directors or General Assembly;
- e) To request, along with several members equal to or greater than one-fifth of the total membership, that the Board of Directors convene deliberative bodies;
- f) To resign whenever deemed necessary, by unilateral act, through a written request submitted to the Association's Secretariat;
- g) To benefit from the services provided by **APSG**;
- h) To vote and be elected to elective positions.

§1 – A regularized member is defined as one who is duly registered, has up-to-date personal data, and has no outstanding dues with **APSG**'s treasury.

§2 – All founding, regular, and aspiring members of **APSG** shall be entitled, upon request, to a membership card issued by the Secretariat and signed by the President of the Association, and the corresponding fee shall be set by the Board of Directors.

§3 – Honorary, meritorious, and corporate members are exempt from paying annual dues due to their special membership status.

Art. 12 – For all events, founding, corporate, and regularized members shall receive special discounts, as established by the Board of Directors.

Art. 13 – Membership rights are personal and non-transferable.

Art. 14 – The duties of founding and regular members are:

- a) To support **APSG** by all available means and to promote the spirit of association among members of the geologist and geological engineer professions;
- b) To attend General Assemblies whenever possible, and to respect and comply with their decisions as well as the resolutions of the Board of Directors;
- c) To pay all fees established by **APSG** promptly;
- d) To respect the laws and the constituted authorities;
- e) To uphold and comply with standards of professional conduct;
- f) To observe and abide by these Bylaws and any regulations that may be established;
- g) To faithfully carry out any elected mandate, with a sense of civic duty and awareness of the responsibilities it entails;
- h) Not to use the name of **APSG** or the prestige of any elected office for political, religious, racial, or personal gain;
- i) Not to make public statements on behalf of **APSG** before official decisions by the Association on matters concerning the professional class;
- j) To comply with the Codes of Ethics of **APSG**, the Regional Council of Engineering and Agronomy - CREA, and the National Confederation of Engineering and Architecture - CONFEA.



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k) To keep their registration data up to date.

Sole Paragraph – Honorary and meritorious members must support **APSG** by all means available to them and promote the spirit of association among members of the profession.

Art. 15 – The rights of aspiring members are:

- a) To participate in **APSG** activities, following its Bylaws and regulations;
- b) To benefit from the services provided by **APSG**;
- c) To take part in General Assemblies.

Art. 16 – The duties of aspiring members are:

- a) To support **APSG** by all means available to them and to promote the spirit of association among members of the geologist and geological engineer professions;
- b) To pay all fees established by **APSG** promptly;
- c) To respect the laws and the constituted authorities;
- d) To comply with standards of professional conduct;
- e) To observe and abide by these Bylaws and any regulations that may be established;
- f) Not to make public statements on behalf of **APSG** before official decisions by the Association on matters concerning the professional class;
- g) To comply with the Codes of Ethics of **APSG**, the Regional Council of Engineering, Architecture, and Agronomy - CREA, and the National Confederation of Engineering and Architecture - CONFEA;
- h) To keep their registration data up to date.

Sole Paragraph – The optional contributions of aspiring members shall correspond to 50% (fifty percent) of the contributions paid by founding and regular members.

Chapter VI Disciplinary Measures

Art. 17 – The **APSG** Board of Directors may impose disciplinary measures on members for violations of these Bylaws, the **APSG** Code of Ethics, or the Codes of Ethics of the Regional Council of Engineering, Architecture, and Agronomy - CREA, or the National Confederation of Engineering and Architecture - CONFEA, as well as for improper professional or social conduct.

§1 – The disciplinary measures, listed below in increasing order of severity, shall be applied according to the seriousness of the infraction:

- a) Private warning;
- b) Public censure;
- c) Temporary suspension of membership rights;
- d) Permanent expulsion of the member, provided that just cause is established through appropriate administrative proceedings that guarantee the right to defense and appeal, following these Bylaws.

§2 – Infractions shall be judged through appropriate administrative proceedings by the **APSG** Ethics Committee, and appeals may be made to the General Assembly.

Art. 18 – The Ethics Committee shall be composed of five (5) members, who must be either founding or regularized regular members, and shall be elected at the second Ordinary General Assembly following the inauguration of a new Board of Directors.

§1 – The term of office of the Ethics Committee shall be equal in duration to that of the elected Board of Directors.



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§2 – The type of penalty applied shall correspond to the severity of the committed infraction.

§3 – Repeat offenses, whether of equal or lesser severity than a prior infraction, shall necessarily result in a penalty of a higher hierarchical degree than the last applied.

§4 – Penalties may only be applied when supported by findings of the Ethics Committee, with the right to appeal to the General Assembly.

Art. 19 – Every member shall have the right, via formal request, to present a defense either orally or in writing before the Ethics Committee and, in the case of appeal, before the General Assembly.

Sole Paragraph – After review by the Ethics Committee, penalties shall be imposed by the Board of Directors, with the right to appeal the decision to the General Assembly.

Art. 20 – Members who have been removed from the Association may be readmitted, provided they are rehabilitated, as determined by the General Assembly.

Sole Paragraph – In the event of readmission under this article, the member shall receive a new registration number, without prejudice to the calculation of their membership tenure.

Chapter VII Elections

Art. 21 – Eligibility to vote and be voted for, as well as the conduct of elections, shall comply with the rules outlined in these Bylaws, and shall always be held by secret ballot, and candidates for administrative and council positions shall be considered elected if they obtain a simple majority of the votes from the members present, unless otherwise explicitly stated in these Bylaws.

§1 – In cases of election vote counting, the General Assembly Board shall be formed by a Committee chaired by the President of the Association.

§2 – In the absence of a competing candidate, the General Assembly may deliberate on the reappointment of the current Board of Directors.

Chapter VIII The General Assembly and Its Powers

Art. 22 – The General Assembly is the highest governing body of APSG and is composed of its founding and regular members.

Art. 23 – The General Assembly shall meet annually in ordinary session and shall have the authority to deliberate on the following matters, without prejudice to other duties established in these Bylaws:

- I. Review and approve the opinion of the Fiscal Council on the financial statements of the current Board of Directors;
- II. Dismiss administrators;
- III. Elect the Board of Directors and the Fiscal Council;
- IV. Inaugurate the Board of Directors and the Fiscal Council and establish the deadline for presenting the work plan;
- V. Appoint members of the Advisory and Fiscal Councils;
- VI. Deliberate on amendments to the Bylaws;
- VII. Deliberate on the dissolution of the Association and the allocation of its assets;
- VIII. Deliberate on omissions and cases not covered by these Bylaws.

Sole Paragraph – A General Assembly convened to amend the Bylaws or dismiss administrators, as provided in items II and VI, must be specially called for this purpose, a quorum of the absolute majority of members is required at the first call; if this is not achieved, the Assembly shall validly convene thirty minutes later with any number of attendees, provided that no fewer than two-thirds (2/3) of those present vote in favor.



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Art. 44 – The assets of **APSG** shall consist of all movable and immovable property, from any origin, as well as the benefits and income derived from them.

Sole Paragraph – All assets referred to in this Article shall be recorded in a special ledger under the custody of the Board of Directors.

Art. 45 – The First Treasurer shall open a checking account in the name of **APSG** at a bank of their choosing, subject to review and approval by the Board of Directors, where all income and expense balances shall be deposited.

Art. 46 – The sources of funding for **APSG's** maintenance include:

- a) Interest from bonds and accounts;
- b) Membership contributions;
- c) Proceeds from the sale of publications;
- d) Income from courses, seminars, or exhibitions;
- e) Administrative or service fees;
- f) Donations and occasional revenues.

Art. 47 – Annual expenses shall be classified as Ordinary or Extraordinary.

Sole Paragraph – The following shall be considered ordinary expenses:

- a) Taxes and fines;
- b) Fees and commissions;
- c) Administrative and representation costs;
- d) Maintenance of the headquarters;
- e) Acquisition and maintenance of furniture, museum items, and collections;
- f) Job placement agency;
- g) Social security (social insurance);
- h) Payroll of the Association's staff;
- i) Receptions, conferences, congresses, and competitions;
- j) Publications, circulars, documents, and other printed materials;
- k) General expenses.

Art. 48 – The management of the Association's assets, consisting of all property it possesses, shall be the responsibility of the Board of Directors.

Art. 49 – Bonds and real estate may only be sold upon proposal by the President, ratified by the Board of Directors and approved by the General Assembly through a secret ballot.

Sole Paragraph – To comply with this Article, the General Assembly must be specially convened for this purpose, and a minimum of two-thirds (2/3) of all regularized founding and regular members must be present to deliberate.

Chapter XI General Provisions

Art. 50 – Representatives of **APSG** in collegiate bodies must be elected at an Ordinary General Assembly, except as provided for in item "r" of Article 34.

Art. 51 – These Bylaws may only be amended by decision of the General Assembly, specially convened for this purpose, with the presence, at the first call, of an absolute majority of members, if this quorum is not met, the Assembly shall validly convene thirty minutes later with at least 30 regularized members, and any resolutions shall be considered approved if they receive the favorable vote of two-thirds (2/3) of those present.



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Art. 52 – The Association shall have financial and economic autonomy and may acquire securities and real estate.

Art. 53 – Regular membership contributions shall be optional and shall be established by the Board of Directors.

Sole Paragraph – Other administrative or service fees shall be mandatory for any member who makes use of them and shall be determined by the Board of Directors.

Art. 54 – Whenever deemed appropriate, the **APSG** Board of Directors may establish delegations, representations, or regional sections to better serve its members.

Art. 55 – **APSG** may only be dissolved by unanimous decision of the members present at a General Assembly specially convened for this purpose, with the presence, at the first call, of an absolute majority of members, if this quorum is not met, the Assembly shall validly convene thirty minutes later with any number of attendees.

Art. 56 – In the event of **APSG**'s dissolution, and with due regard to political and social structure, its assets—once debts and obligations have been settled—shall be allocated to non-profit entities, as decided by the members present at the dissolution General Assembly.

Art. 57 – Members shall not be held personally liable for the obligations of the Association.

Art. 58 – Any omissions in these Bylaws shall be addressed and resolved by the General Assembly.

Art. 59 – These Bylaws shall come into force immediately upon approval by the General Assembly and must subsequently be registered with the competent legal authority.

Porto Alegre, December 14, 2009

Ivam Luís Zanette
President

Legal Review
Fabiana Figueiró
OAB/RS 61.770

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: July 01, 2025.



ASSOCIAÇÃO PROFISSIONAL SUL-BRASILEIRA DE GEÓLOGOS- APSG

ESTATUTO DA ASSOCIAÇÃO PROFISSIONAL SUL-BRASILEIRA DE GEÓLOGOS - APSG

Capítulo I

Denominação social e natureza jurídica

Art. 1º - A Associação Profissional Sul-Brasileira de Geólogos - APSG, é uma associação sem fins lucrativos – criada em 1970, com vigência por prazo indeterminado, constituída para fins de coordenação, defesa e representação dos Geólogos e Engenheiros Geólogos, no Estado do Rio Grande do Sul, incrementando a solidariedade da classe e sua subordinação aos interesses nacionais, estando registrada no Cartório de registro Civil de Pessoas Jurídicas sob o n.º 5681 e regendo-se pelo presente estatuto, aprovado em Assembléia Geral do dia 14 de Dezembro de 2009.

Parágrafo único – Para fins do presente Estatuto, doravante, a Associação Profissional Sul-Brasileira de Geólogos – APSG, será indicada apenas pela sigla **APSG**.

Capítulo II

Da sede

Art. 2º - A **APSG**, terá sua sede e foro no Município de Porto Alegre, Estado do Rio Grande do Sul, na Rua Otávio Rocha nº 22, 8º andar, podendo abrir filiais ou agências em outras localidades.

Capítulo III

Das finalidades

Art. 3º - São finalidades da **APSG**:

- a) proporcionar aos Geólogos e Engenheiros Geólogos do Rio Grande do Sul os meios necessários para a defesa da profissão de Geólogo e Engenheiro Geólogo;
- b) zelar pelo cumprimento das normas de conduta profissional, no âmbito de sua jurisdição;
- c) lutar pela ampliação do mercado de trabalho, bem como de sua remuneração justa e condigna, atuando junto aos órgão estatais, para-estatais, autárquicos e entidades particulares, divulgando a profissão, propondo convênios, reivindicando junto aos órgão governamentais, sejam federais, estaduais ou municipais, o preenchimento dos cargos existentes e que não estão sendo preenchidos por técnicos que sejam geólogos, bem como pleiteando a criação de cargos de geólogos nos quadros técnicos de órgãos públicos e entidades privadas, que comportem atribuições à estes profissionais;
- d) propugnar junto aos poderes públicos providências, planejamento e legislação, visando ao desenvolvimento do Brasil;
- e) colaborar com as autoridades governamentais, como órgão técnico consultivo, no estudo e solução dos problemas que se relacionam com a categoria profissional de geólogo e engenheiro geólogo;
- f) propugnar pelo congraçamento com as profissões liberais afins;
- g) estimular o ensino e desenvolvimento das ciências geológicas e lutar por currículos mais adequados à realidade nacional;
- h) representar, perante as autoridades administrativas e judiciárias, os interesses individuais e coletivos dos associados, sempre que se relacionem com a profissão de geólogo, bem como colaborar para a solução amistosa de problemas ligados a profissão;
- i) promover congressos, conferências, seminários, exposições, publicações ou outras manifestações ligadas a profissão de geólogo e engenheiro geólogo, no âmbito da sua jurisdição;
- j) promover o aprimoramento profissional do geólogo através de palestras, cursos e outros.
- k) fundar e manter agências de colocação para o benefício de seus associados;



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- l) prestigiar e apoiar seus associados junto a organizações nacionais e estrangeiras em aspectos relativos a bolsas de estudo e estágios.
- m) promover a defesa do meio ambiente e da ordem econômica e social;

Art. 4º - São condições para o funcionamento da **APSG**, manter-se como entidade técnico-cultural e profissional, abstendo-se de qualquer propaganda política, partidária, religiosa, ideológica ou filosófica, assim como indicação ou apoio a candidaturas a cargos eletivos estranhos à Associação, com exceção daquelas em que se fizer necessário ao interesse profissional e, recebendo em seu seio todos os geólogos e engenheiros geólogos, sem preocupação de ideologias políticas, crenças religiosas ou origens raciais de cada um.

- a) Observar rigorosamente a Lei e os princípios de moral e de compreensão dos deveres cívicos;
- b) Os cargos da Diretoria não serão remunerados.

Capítulo IV

Dos associados

Art. 5º - Todo aquele que participe da categoria profissional de geólogo e engenheiro geólogo, residente ou que exerça suas atividades parcial ou totalmente, no Estado do Rio Grande do Sul, formado por qualquer instituição de nível superior brasileira que tenha competência para conferir os títulos de geólogo ou engenheiro geólogo, bem como aqueles formados em instituições semelhantes estrangeiras, com diploma oficialmente revalidado no Brasil, possui o o direito de de requerer admissão na **APSG**.

Parágrafo único – A **APSG** reconhece as seguintes categorias de associados:

1. fundadores;
2. efetivos;
3. corporativos;
4. honorários;
5. beneméritos e
6. aspirantes.

Art. 6º - Serão associados fundadores: aqueles que participaram da Assembléia de Fundação da **APSG**, cujas as assinaturas constam na primeira ata.

Art. 7º - Serão associados efetivos: todos os geólogos residentes ou que exerçam função no Estado do Rio Grande do Sul, desde que requeiram formalmente sua admissão na **APSG**.

Parágrafo primeiro - Serão associados corporativos todos os geólogos residentes ou que exerçam função no Estado do Rio Grande do Sul.

Art. 8º - Serão associados honorários, mediante deliberação da Diretoria e homologação pelo Assembléia Geral, geólogos brasileiros ou estrangeiros, ou instituições de reconhecido mérito, científico ou técnico, desde que hajam prestado relevantes serviços à classe, seja em aspectos técnico-científicos, econômico-sociais ou jurídicos.

Art. 9 - Serão associados beneméritos pessoas ou instituições que hajam prestado relevantes serviços à **APSG** ou que tenham feito doativos ou legados iguais ou superiores a cinco vigentes no Município de Porto Alegre, na data da doação, sendo o título conferido pela Diretoria e homologado pela Assembléia Geral.

Art. 10 - Serão associados aspirantes os alunos do último ano dos cursos formadores de geólogos e engenheiros geólogos, que forem admitidos no quadro social mediante proposta assinada pelo candidato, deliberada pela Diretoria e homologada pela Assembléia Geral.

Capítulo V



ASSOCIAÇÃO PROFISSIONAL SUL-BRASILEIRA DE GEÓLOGOS- APSG

Direitos e Deveres dos Associados

Art. 11 - São direitos dos associados fundadores ou efetivos regularizados:

- a) participar das atividades da **APSG**, nos termos do seu Estatuto e regulamentos;
- b) tomar parte, votar e ser votado para cargos de Direção nas Assembléias Gerais da **APSG**, obedecidas as disposições estatutárias;
- c) propor à Diretoria a discussão de teses e assuntos de interesses dessa classe profissional;
- d) integrar qualquer comissão para a qual tenha sido designado pela Diretoria ou Assembléia Geral;
- e) requerer à Diretoria, com número de associados iguais ou superiores a 1/5 do total dos mesmos, a convocação dos órgãos deliberativos;
- f) demitir-se quando julgar necessário, por ato unilateral, protocolando junto a Secretária da Associação seu pedido de demissão;
- g) gozar dos serviços instituídos pela **APSG**;
- h) votar e ser votado para os cargos eletivos;

§ 1º – Entende-se por associado regularizado aquele que esteja regularmente inscrito, com dados cadastrais em dia e que não tenha débitos com a tesouraria da **APSG**.

§ 2º – Todos os associados fundadores, efetivos e aspirantes da **APSG** terão direito, mediante requerimento, a uma carteira que lhe será expedida pela secretária e assinado pelo Presidente da Associação, sendo a taxa correspondente fixada pela Diretoria.

§3º - Os associados honorários, beneméritos e corporativos ficam dispensados de pagar anuidades, em razão de sua categoria especial.

Art. 12 - Em todos os eventos, os associados fundadores, corporativos e efetivos regularizados terão descontos especiais, estabelecidos pela diretoria.

Art. 13 - Os direitos dos associados são pessoais e intransmissíveis.

Art. 14- São deveres dos associados fundadores e efetivos:

- a) prestigiar a **APSG**, por todos os meios ao seu alcance e propagar o espírito associativo entre os elementos da classe de Geólogos e Engenheiros Geólogos;
- b) comparecer, sempre que possível, às Assembléias Gerais, bem como respeitar e acatar suas decisões e suas deliberações da Diretoria;
- c) pagar pontualmente as taxas instituídas pela **APSG**;
- d) respeitar as Leis e as Autoridades Constituídas;
- e) respeitar e obedecer as normas de conduta profissional;
- f) respeitar e cumprir os presentes Estatutos e os regulamentos que forem criados;
- g) cumprir mandato para o qual for eleito, com espírito público, consciente dos seus deveres e das responsabilidades que o mandato impõe;
- h) não usar o nome da **APSG** e o prestígio do cargo para o qual foi eleito para manifestações político-partidárias, de crenças religiosas, de princípios raciais ou para proveito próprio.
- i) não se antecipar publicamente às decisões da **APSG**, quando de suas manifestações com órgão de classe.
- j) Respeitar os códigos de Ética da **APSG**, Conselho Regional de Engenharia, Arquitetura e Agronomia - CREA e Confederação Nacional de Engenharia e Arquitetura - CONFEA.



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- k) Manter o seus dados cadastrais sempre atualizados.

Parágrafo único – São deveres dos associados honorários e beneméritos prestigiar a **APSG**, por todos os meios ao seu alcance e propagar o espírito associativo entre os elementos da classe.

Art. 15 - São direitos dos associados aspirantes:

- a) participar das atividades da **APSG**, nos termos do seu Estatuto e regulamentos;
- b) gozar dos serviços instituídos pela **APSG**;
- c) tomar parte nas Assembléias Gerais.

Art. 16 São deveres dos associados aspirantes:

- a) prestigiar a **APSG**, por todos os meios ao seu alcance e propagar o espírito associativo entre os elementos da classe de Geólogos e Engenheiros Geólogos;
- b) pagar pontualmente as taxas instituídas pela **APSG**;
- c) respeitar as Leis e as Autoridades Constituídas;
- d) respeitar e obedecer as normas de conduta profissional;
- e) respeitar e cumprir os presentes Estatutos e os regulamentos que forem criados;
- f) não se antecipar publicamente às decisões da **APSG**, quando de suas manifestações com órgão de classe.
- g) Respeitar os códigos de Ética da **APSG**, do Conselho Regional de Engenharia, Arquitetura e Agronomia - CREA e da Confederação Nacional de Engenharia e Arquitetura - CONFEA.
- h) Manter o seus dados cadastrais sempre atualizados

Parágrafo único - As contribuições opcionais dos associados aspirantes corresponderão a 50% (cinquenta por cento) daquelas pagas pelos associados fundadores e efetivos.

Capítulo VI

Das Penalidades

Art. 17 - A Diretoria da **APSG** poderá aplicar penalidades ao associado por infração ao presente Estatuto, ao seu Código de Ética, bem como aos Códigos de Ética do Conselho Regional de Engenharia, Arquitetura e Agronomia - CREA e Confederação Nacional de Engenharia e Arquitetura - CONFEA ou por má conduta profissional ou social.

§1º - As penalidades, abaixo elencadas em ordem crescente, serão aplicadas de acordo com a gravidade da falta:

- a) advertência reservada;
- b) censura pública;
- c) suspensão temporária dos direitos de associado;
- d) Exclusão definitiva do associado, havendo justa causa, assim reconhecida em procedimento administrativo próprio que admita direito de defesa e de recurso, nos termos do presente Estatuto.

§2º - As infrações serão julgadas em procedimento administrativo próprio, pela Comissão de Ética da **APSG**, cabendo recurso à Assembléia Geral.

Art. 18 - A Comissão de Ética, será constituída de 5 (cinco) membros, associados fundadores ou associados efetivos regularizados, devendo ser eleita na segunda Assembléia Geral Ordinária após a posse da nova Diretoria.

§ 1º – O mandato da Comissão de Ética será por período igual ao mandato da Diretoria eleita.



ASSOCIAÇÃO PROFISSIONAL SUL-BRASILEIRA DE GEÓLOGOS– APSG

§ 2º - O tipo de penalidade aplicada será de acordo com a gravidade da infração cometida.

§ 3º - Novas infrações, com gravidade idêntica ou inferior a cometida anteriormente, implicam necessariamente em penalidade de grau hierárquico superior à última aplicada.

§ 4º - As penalidades só poderão ser aplicadas quando instruídas pela Comissão de Ética, cabendo recurso à Assembléia Geral.

Art. 19 - Todo associado, por meio de ofício, terá direito à defesa oral ou escrita, perante a Comissão de Ética bem como perante a Assembléia Geral, em caso de recurso;

Parágrafo único – As penalidades, após análise da comissão de ética, serão impostas pela Diretoria cabendo recurso da decisão para a Assembléia Geral.

Art. 20 - Os associados que tenham sido excluídos do quadro social poderão reingressar na Associação, desde que se reabilitem, a juízo da Assembléia Geral.

Parágrafo Único – Na hipótese de readmissão de que trata este artigo, o associado receberá novo número de matrícula, sem prejuízo da contagem de tempo como associado.

Capítulo VII

Das Eleições

Art. 21 - As condições para votar e ser votado e o processamento eleitoral das votações obedecerão às normas estabelecidas no presente estatuto, atendendo sempre às exigências do escrutínio secreto e considerados eleitos para cargos de administração e conselheiros os que alcançarem a maioria simples dos votos dos associados presentes, salvo os casos explícitos no presente Estatuto.

§ 1º – A mesa da Assembléia Geral, em casos de apuração de eleição, será constituída por uma Comissão, presidida pelo Presidente da Associação.

§ 2º - Na ausência de propostas de chapas concorrentes, a Assembléia Geral pode deliberar pela recondução da diretoria em exercício.

Capítulo VIII

Da Assembléia Geral e da sua Competência

Art. 22 - A Assembléia Geral é o órgão máximo da APSG e é constituída pelos seus associados fundadores e efetivos.

Art. 23 – A Assembléia Geral reunir-se-á de forma ordinária anualmente, tendo competência para deliberar sobre os seguintes temas, sem prejuízo de outras atribuições previstas neste Estatuto:

- I. Analisar e aprovar o parecer do Conselho Fiscal sobre o Balanço Financeiro da diretoria em exercício;
- II. Destituir os administradores;
- III. Eleger a Diretoria e o Conselho Fiscal;
- IV. Dar posse à Diretoria e ao Conselho Fiscal, bem como fixar a data de apresentação do plano de trabalho;
- V. Nomear os membros dos Conselhos Consultivo e Fiscal;
- VI. Deliberar sobre alterações do Estatuto;
- VII. Deliberar sobre a extinção da Associação e a destinação do patrimônio social;
- VIII. Deliberar sobre casos omissos e não previstos neste Estatuto.

Parágrafo único - A Assembléia Geral que deliberar sobre a alteração do Estatuto ou destituição dos administradores, nos termos do inciso II e VI, deverá ser especialmente convocada para esse fim, com a presença, em primeira convocação, da maioria absoluta dos associados; caso esse coeficiente não seja alcançado, instalar-se-á, validamente, meia hora após, com qualquer número, devendo haver voto concorde de no mínimo 2/3 (dois terços) dos presentes.



ASSOCIAÇÃO PROFISSIONAL SUL-BRASILEIRA DE GEÓLOGOS– APSG

Art. 44 - Constituem o patrimônio social da **APSG** todos os bens, móveis e imóveis, advindos de qualquer origem, bem como os benefícios e rendas deles auferidos.

Parágrafo Único - Todos os bens referidos no presente Artigo serão registrados em livro especial sob a guarda da Diretoria.

Art. 45 - O Primeiro Tesoureiro abrirá conta corrente em nome da **APSG**, em banco de sua indicação, depois de submetido a julgamento e aprovação da Diretoria, onde depositará o saldo da receita e despesa.

Art. 46 – São fontes de recursos para sua manutenção:

- a) juros de títulos e rendas e de contas correntes;
- b) contribuições pagas pelos associados;
- c) produtos de venda de publicações;
- d) produtos de realização de cursos, seminários ou exposições;
- e) taxas de expedientes ou de serviços;
- f) donativos e rendas eventuais.

Art. 47 - A despesa anual será classificada em Ordinária e Extraordinária.

Parágrafo Único - Serão considerados despesas ordinárias as decorrentes de:

- a) impostos e multas;
- b) honorários e comissões;
- c) expedientes e representações;
- d) manutenção da sede;
- e) aumento e conservação de mobiliário, museu e coleções;
- f) agência de colocações;
- g) previdência (seguros sociais);
- h) folha de pagamento dos funcionários da Associação;
- i) recepções, conferência, congressos e concursos;
- j) publicações, circulares, documentos e outros impressos.
- k) despesas gerais;

Art. 48 - A administração do patrimônio da Associação, constituído pela totalidade dos bens que a mesma possuir, compete à Diretoria.

Art. 49 - Os títulos de renda, bem como os bens imóveis, só poderão ser alienados mediante proposta do Presidente ratificada pela Diretoria e aprovada em Assembléia Geral em escrutínio secreto.

Parágrafo Único - Para cumprir o disposto no presente Artigo a Assembléia Geral deverá ser convocada especialmente para este fim, deliberando com a presença mínima de 2/3 (dois terços) do total dos associados fundadores e efetivos regularizados da Associação.

Capítulo XI

Disposições Gerais

Art. 50 - Os representantes da **APSG** em órgãos colegiados deverão ser eleitos em Assembléia Geral Ordinária, ressalvado o disposto na alínea “r” do artigo 34.

Art. 51 - Os presentes Estatutos somente poderão ser reformados, por decisão da Assembléia Geral, especialmente convocada para esse fim, com a presença, em primeira convocação, da maioria absoluta dos associados; caso esse coeficiente não seja alcançado, instalar-se-á, validamente, meia hora após, com, no mínimo, 30 associados regularizados, considerando-se aprovadas as deliberações que obtiverem aprovação de 2/3 dos presentes.



**ASSOCIAÇÃO PROFISSIONAL SUL-BRASILEIRA DE
GEÓLOGOS– APSG**

Art. 52 - A Associação terá autonomia financeira e econômica, podendo adquirir títulos e bens imóveis.

Art. 53 – As contribuições regulares dos associados serão opcionais, devendo ser fixadas pela Diretoria.

Parágrafo único - As demais taxas de expediente ou de serviço são de caráter obrigatório para o associado que usufruir, sendo as mesmas fixadas pela Diretoria.

Art. 54 - A Diretoria da **APSG**, quando julgar oportuno, instituirá delegações, representações ou seções para melhor atendimento de seus associados.

Art. 55 - A **APSG** somente poderá ser extinta por decisão unânime dos associados presentes, em Assembléia Geral especialmente convocada para este fim, com a presença, em primeira convocação, da maioria absoluta dos associados; caso esse coeficiente não seja alcançado, instalar-se-á, validamente, meia hora após, com qualquer número.

Art. 56 - No caso de dissolução da **APSG**, a estrutura e a ordem política e social, o seu patrimônio, pagas as dívidas decorrentes das suas responsabilidades, será destinado à entidades de fins não econômicos, por deliberação dos associados presentes à Assembléia Geral de dissolução.

Art. 57 - Os associados não respondem pelas obrigações da Associação.

Art. 58 - Os casos omissos dos presentes Estatutos serão discutidos e decididos em Assembléia Geral.

Art. 59 - Os presentes Estatutos entrarão em vigor imediatamente após a sua aprovação em Assembléia Geral, devendo ser posteriormente registrados em órgão legal competente.

Porto Alegre, 14 de dezembro de 2009.

Ivam Luís Zanette
Presidente

Visto Advocatício
Fabiana Figueiró
OAB/RS 61.770

**C.II - Second Prong -
Well-Positioned to
Advance the
Proposed Endeavor -
Letters of Support**

August 6, 2025
Natal, Rio Grande do Norte, Brazil

Dear Immigration Officer,

I am Dr. Henrique Garcia Pereira, a geophysicist with a Master's in Geosciences and a Ph.D. in Geology. Over my career, I have worked in applied geophysics, from field acquisition in industry to academic research, and I am proficient in specialized tools such as Oasis Montaj. I currently serve as a postdoctoral researcher in the Department of Geology at the Federal University of Rio Grande do Norte (UFRN), where my work focuses on pre-salt analog studies using geophysical methods.

My professional relationship with Mr. Dessart began during our doctoral studies at the Federal University of Paraná (UFPR). We enrolled in graduate-level courses and took part in applied geophysics field activities. In that environment, I observed his strong analytical aptitude, reliability in team settings, and ability to formulate effective investigative approaches to real-world geological challenges.

Mr. Dessart excels at integrating geophysical, structural, and hydrogeological data to support groundwater management in complex settings. A representative example is his doctoral research in Bagé, Rio Grande do Sul, within the Sistema Aquífero Embasamento Cristalino II (SAEC II), a region marked by water scarcity. By combining aeromagnetometry, structural analysis (lineaments), and hydrogeologic interpretation, he delineated favorable drilling targets for groundwater prospecting. In these workflows, he applied ArcGIS and Oasis Montaj to transform raw datasets into decision-ready interpretations that are technically sound and auditable.

In light of the rising demand for professionals in groundwater exploration and aquifer sustainability, Mr. Dessart's ability to connect geophysical surveys with hydrogeological frameworks is directly applicable to U.S. water-resource challenges, from delineating potable water supplies in fractured-bedrock terrains to informing strategies that mitigate overexploitation risks. His competence aligns with national interests in the protection of water resources, environmental standards, and infrastructure strength.

In conclusion, based on my direct observations of Mr. Rafael Lima Dessart's work in graduate courses and applied geophysics field activities, I recommend favorable consideration of his petition. In my professional judgment, his capacity to combine geophysical, structural, and hydrogeological data into decision-ready interpretations directly addresses U.S. priorities and would immediately provide practical value to U.S. stakeholders.

Do not hesitate to reach out if you require further information or assistance at my e-mail: riconhecimento@gmail.com or phone: (55)84 999149017

Best Regards,

Dr. Henrique Garcia Pereira

Postdoctoral Researcher, Department of Geology at UFRN

A handwritten signature in blue ink, reading "Henrique Garcia Pereira". The signature is written in a cursive style with a large initial 'H'.

August 4, 2025

To Whom It May Concern,

My name is Professor Dr. Pedro Antonio Roehe Reginato. I am a Geologist (1993), M.Sc. in Geosciences (1996), and Ph.D. in Engineering (2003), all from the Federal University of Rio Grande do Sul (UFRGS). My doctoral research focused on integrating diverse data sets to improve the prospecting of fractured aquifer systems. Over nearly three decades, I have developed expertise in hydrogeology, particularly in fractured and coastal aquifer systems, groundwater vulnerability assessment, aquifer recharge estimation, and resource evaluation. This background has provided a solid scientific foundation for teaching, research, and consulting in geosciences.

I am a Professor of Hydrogeology at the Institute of Hydraulic Research (IPH) of UFRGS, in Porto Alegre, Brazil, where I teach and supervise research on groundwater management, hydrogeology of fractured and coastal aquifers, groundwater chemistry, and the application of geophysical tools in water studies. Along with lecturing, I have extensive practical experience in water resource projects, including groundwater extraction, well drilling, environmental impact assessments (EIA-RIMA), and technical consulting related to water management and environmental control. I have also participated in extension projects, contributed to educational materials, and collaborated with institutional committees.

I first met Mr. Rafael Lima Dessart when he was a student in one of our postgraduate courses in hydrogeology. Subsequently, I served as his doctoral advisor at UFRGS, guiding the research and development of his doctoral project. This collaboration allowed me to observe his commitment, intellectual rigor, and growing expertise in groundwater investigation.

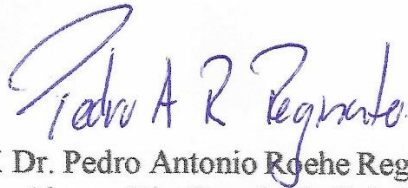
Throughout our interaction, I was consistently impressed by Mr. Dessart's persistence and analytical ability in solving complex geological challenges. He devoted himself to studying the relationship between geophysical data integration and successful well location in fractured aquifers, an area in which he excelled. His adept use of ArcGIS and geophysical analysis programs demonstrated both solid technical proficiency and strong problem-solving skills, allowing him to transform raw datasets into decision-ready interpretations.

In professional conduct, Mr. Dessart distinguished himself by his methodical approach and thoroughness. Faced with intricate geological conditions, whether related to lithology, structural features, or aquifer vulnerability, he gathered and analyzed the relevant datasets and proposed effective, technically sound solutions. This rigor proved instrumental in producing reliable models for groundwater exploration and reducing the risk of failed or inefficient drilling efforts.

Considering the increasing demand for experienced experts in water resources, particularly in groundwater exploration and aquifer sustainability, Mr. Dessart's ability to integrate geophysical surveys with geological frameworks would be valuable in diverse U.S. contexts, from delineating safe drinking-water sources to mitigating overexploitation risks. His competence aligns with national interests in water security, environmental regulation, and infrastructure resilience.

To conclude, I recommend Mr. Rafael Lima Dessart for the EB-2 National Interest Waiver. His combination of advanced geological knowledge, applied geophysical practice, and consistent professional rigor positions him to contribute meaningfully within the United States.

Cordially,

A handwritten signature in blue ink, reading "Pedro A R Reginato". The signature is fluid and cursive, with the first name "Pedro" being the most prominent.

Prof. Dr. Pedro Antonio Roehé Reginato

Porto Alegre, Rio Grande do Sul, Brazil

Professor of Hydrogeology, IPH – Federal University of Rio Grande do Sul (UFRGS)

E-mail: pedro.reginato@ufrgs.br • Phone: +55 51 3308 6416



Pedro Antonio Roehe Reginato

Link to access this CV: <http://lattes.cnpq.br/7651498922055692>

Lattes ID: **7651498922055692**

Last Curriculum update on 04/15/2025

Geologist from the Federal University of Rio Grande do Sul (1993), Master's degree in Geosciences from the Federal University of Rio Grande do Sul (1996), and Ph.D. in Engineering from the Federal University of Rio Grande do Sul (2003). Currently a Professor at the Institute of Hydraulic Research (IPH) of the Federal University of Rio Grande do Sul (UFRGS), working in the field of hydrogeology. Conducts research activities in the area of fractured and coastal aquifer systems, focusing on hydrogeological characterization, vulnerability assessment, and estimates of aquifer recharge and reserves. **(Information provided by the author)**

Identification

Name

Pedro Antonio Roehe Reginato

Name in bibliographic citations

REGINATO, P. A. R.; ROEHE REGINATO,
PEDRO ANTONIO; REGINATO, PEDRO
ANTONIO ROEHE; REGINATO, PEDRO
ANTÔNIO; REGINATO; ROEHE REGINATO,
PEDRO ANTÔNIO; REGINATO, PEDRO R.;
PEDRO ROEHE ANTONIO REGINATO;
REGINATO PEDRO ROEHE ANTONIO;
REGINATO, PEDRO ROEHE ANTONIO

Lattes ID <http://lattes.cnpq.br/9676495411722830>

Orcid iD <https://orcid.org/0000-0002-9739-7256>

**Country of
Nationality** Brazil

Address

Professional Address:

Federal University of Rio Grande do Sul,
Institute of Hydraulic Research
Av. Bento Gonçalves, 9500
Agronomia
91501-970 – Porto Alegre, RS – Brazil
P.O. Box: 15029
Phone: +55 (51) 3308-6416
Extension: 6416

Academic Background / Degrees

1997 - 2003

Ph.D. in Mining Engineering
Federal University of Rio Grande do Sul (UFRGS), Brazil.
Dissertation Title: Data Integration for the Prospecting of Fractured Aquifers in the Northeastern Region of the State of Rio Grande do Sul
Year Awarded: 2004
Advisor: Adelir José Strieder
Fellow: Coordination for the Improvement of Higher Education Personnel (CAPES), Brazil.
Keywords: Hydrogeology; groundwater prospecting; data integration.
Major Area: Exact and Earth Sciences
Area: Geosciences / Subarea: Geology
Specialization: Environmental Geology
Major Area: Exact and Earth Sciences
Area: Geosciences / Subarea: Geology
Specialization: Mineral Prospecting
Sectors of Activity: Mineral Resources.

1994 - 1996

Master's Degree in Geosciences
Federal University of Rio Grande do Sul (UFRGS), Brazil.
Thesis Title: Geology and Holocene Evolution of the Northern Region of the Coastal Plain of Rio Grande do Sul, Year Awarded: 1996
Advisor: Luiz José Tomazelli
Fellow: National Council for Scientific and Technological Development (CNPq), Brazil.
Keywords: Coastal geology; coastal plain geology; geological mapping.
Major Area: Exact and Earth Sciences
Sectors of Activity: Mineral Resources.

1989 - 1993

Bachelor's Degree in Geology
Federal University of Rio Grande do Sul (UFRGS), Brazil.
Undergraduate Thesis Title: Geology of Belt II – Figueiras Project – Vau dos Prestes
Advisor: Luiz Fernandez Avila.

Additional Training

2007 - 2007

Well Contamination – Causes and Prevention
(workload: 8 hours)
Brazilian Association of Groundwater (ABAS), Brazil.

2006 - 2006

Characterization and Assessment of Contamination Risk
(Workload: 16 hours).
Brazilian Association of Groundwater (ABAS), Brazil.

2002 - 2002

University Extension Course in Well Hydraulics -
Pumping Tests (Workload: 32 hours).
University of Vale do Rio dos Sinos (UNISINOS), Brazil.

2002 - 2002

University Extension Course in GWW
(GROUND WATER FOR WINDOWS)
(Workload: 45 hours).
University of Vale do Rio dos Sinos (UNISINOS), Brazil.

2001 - 2001

University Extension Course in SOIL AND
GROUNDWATER CONTAMINATION
(Workload: 24 hours).
UNIVERSITY OF VALE DO RIO DOS SINOS (UNISINOS),
Brazil.

2001 - 2001

GPS POSITIONING
(Workload: 12 hours)
BRAZILIAN SOCIETY OF CARTOGRAPHY (SBC), Brazil.

1999 -1999

GIS - IMPLEMENTATION IN A GENERIC ENVIRONMENT
(Workload: 8 hours)
GISBRASIL, GISBRASIL98, Brazil.

1999 - 1999

GIS FOR MUNICIPAL MANAGEMENT
(Workload: 18 hours)
GISBRASIL, GISBRASIL98, Brazil.

1998 -1998

GIS FOR REGISTRATION
(Workload: 9 hours)
GISBRASIL, GISBRASIL98, Brazil.

1998 - 1998

DIGITAL ORTHOPHOTOMAP
(Workload: 8 hours)
GISBRASIL, GISBRASIL98, Brazil.

1997 - 1997

INTRODUCTION TO REMOTE SENSING – ENVI
(Workload: 40 hours)
Federal University of Rio Grande do Sul (UFRGS), Brazil.

1995 -1995

University Extension Course in GROUNDWATER AND
DEEP TUBULAR WELLS (Workload: 12 hours)
Federal University of Rio Grande do Sul (UFRGS), Brazil.

1995 - 1995

DIDACTIC-PEDAGOGICAL UPDATING SEMINAR
(Workload: 24 hours)
University of Caxias do Sul (UCS), Brazil.

1993 - 1993

RIMA - Environmental Impact Report
(Workload: 40 hours)
Federal University of Rio Grande do Sul (UFRGS), Brazil.

Professional Experience

Federal University of Rio Grande do Sul (UFRGS), Brazil

Institutional Affiliation

2011 - Present

Employment Type: Public Servant
Position: Associate Professor III, Workload: 40
Regime: Exclusive dedication,

Activities

02/2025 - Present

Councils, Committees, and Consulting, Institute
of Geosciences

Position / Role
Full Member of the Undergraduate Committee
of the Geology Program

08/2024 - Present

Teaching, Water Resources, and Environmental Sanitation
Level: Graduate Stud.

Courses Taught
Quantitative Assessment of Groundwater

08/2024 - Present

Councils, Committees, and Consulting, Institute of
Hydraulic Research

Position / Role
Unit Evaluation Committee – NAU

03/2020 - Present

Teaching, Water Engineering
Level: Undergraduate

Courses Taught
Aquifer Management

03/2018 - Present

Teaching, Water Resources and Environmental Sanitation
Level: Graduate Studies

Courses Taught
Groundwater

03/2018 - Present

Teaching, Geology, Level: Undergraduate

Courses Taught
Hydrogeology II

03/2016 - Present

Teaching, Water Resources, and Environmental Sanitation
Level: Graduate Studies

Courses Taught
Hydrogeology of Coastal Aquifers

08/2014 - Present

Teaching, Water Resources, and Environmental Sanitation
Level: Graduate Studies

Courses Taught

08/2014 - Present

Teaching, Water Resources, and Environmental Sanitation
Level: Graduate Studies

Courses Taught
Hydrogeology of Fractured Aquifers

08/2011 - Present

University Extension, Institute of Hydraulic Research

Extension Activities
Extension Projects, Lectures, and Development of
Didactic Materials for Knowledge Dissemination

03/2011 - Present

Research and Development, Institute of Hydraulic Research

Research Lines
Hydrochemistry of Fractured Aquifers
Hydrodynamics of Fractured Aquifers
Hydrogeology of Fractured Aquifers
Hydrogeology of Coastal Aquifers

**09/2021 –
09/2023**

Councils, Committees, and Consulting, Institute
of Hydraulic Research

Position / Role
Participating Member of the IPH Extension Committee

**08/2020 –
07/2023**

Councils, Committees, and Consulting, Institute
of Hydraulic Research

Position / Role
Member of the Curriculum Development Committee (NDE) of
the Environmental Engineering Program – Representative of
the Department of Hydraulics and Hydrology (DHH).

**05/2021 –
02/2023**

Councils, Committees, and Consulting,

Institute of Geosciences

Position / Role

Member of the Faculty Curriculum Committee
of the Geology Program.

**02/2021 –
02/2023**

Councils, Committees, and Consulting,
Institute of Geosciences

Position / Role

Full Member of the Undergraduate Committee of the Geology
Program

**01/2017 –
01/2023**

Councils, Committees, and Consulting,
Institute of Geosciences

Position / Role

Geology Undergraduate Committee (COMGRAD Geology) –
Department Representative from Outside the Program.

**01/2020 –
08/2022**

Teaching, Environmental Engineering
Level: Undergraduate

Courses Taught
General Hydrogeology

**07/2021 –
12/2021**

Teaching, Agronomy, Level: Undergraduate

Courses Taught
Groundwater for Agronomy

**09/2019 –
09/2021**

Councils, Committees, and Consulting,
Institute of Hydraulic Research

Position / Role

Participating Member of the IPH Extension Committee

**03/2019 –
03/2020**

Councils, Committees, and Consulting,
Institute of Hydraulic Research

Position / Role

Member of the Undergraduate Committee of the
Agronomy Program

**05/2018 –
01/2020**

Teaching, Environmental Engineering
Level: Undergraduate

Courses Taught

Groundwater: Contamination and Control

**03/2011 –
01/2020**

Teaching, Mining Engineering
Level: Undergraduate

Courses Taught

Hydrogeology

**09/2017 –
09/2019**

Councils, Committees, and Consulting,
Institute of Hydraulic Research

Position / Role

Participating Member and Alternate Member of the IPH
Research Committee

**01/2019 –
01/2019**

Councils, Committees, and Consulting,
Institute of Hydraulic Research

Position / Role

Faculty Representative on the Undergraduate Committee of the
Geology Program

**12/2018 –
01/2019**

Management and Administration, Institute of Hydraulic
Research

Position / Role
Head of the Hydromechanics and Hydrology Department of the
IPH.

**03/2011 –
12/2017**

Teaching, Technical Course in Hydrology
Level: Professional Development

Courses Taught
Hydrogeology (Geology and Groundwater)

**09/2015 –
09/2017**

Councils, Committees, and Consulting,
Institute of Hydraulic Research

Position / Role
Alternate Coordinating Member of
the IPH Research Committee

**12/2016 –
01/2017**

Councils, Committees, and Consulting,
Institute of Hydraulic Research

Position / Role
Coordinator of the IPH Research Committee

**03/2014 –
08/2016**

Teaching, Agronomy, Level: Undergraduate

Courses Taught
Groundwater for Agronomy

**10/2012 –
12/2015**

Teaching, Water Resources, and Environmental Sanitation
Level: Graduate Studies

Courses Taught
Groundwater

**03/2013 –
03/2015**

Councils, Committees, and Consulting,
Institute of Hydraulic Research

Position / Role
Alternate Member of the Undergraduate Committee

2002–2004

Employment Type: Technical Manager – Geologist
Position: Contract for Position and Function with CREA-RS
(Regional Council of Engineering and Agronomy of Rio Grande
do Sul), Workload: 8 hours

**Additional
Information**

Geologist and technical manager responsible for mining and
environmental areas.

Various Companies - Provider of Technical Geological Services, SELF-EMPLOYED, Brazil.

Institutional Affiliation

2002–2010

Employment Type: Geologist
Position: Service Contract
Workload: 20 hours

**Additional
Information**

Preparation of Mineral Water Research Applications,
Preparation of Mineral Water Research Reports, Description of
Physical Environment for Recovery of Degraded Areas,
Preparation of Geological Reports, Preparation of Projects for
the Recovery of Areas Degraded by Mining, Preparation of
Projects for Prior Authorization for Well Drilling, Preparation of
Projects for the Regularization and Granting of Well Permits,
Well Location Studies, Evaluation of Pumping Tests and
Preparation of Well Pumping Projects

Research Lines

1.

Hydrochemistry of Fractured Aquifers

Objective: Evaluation and hydrochemical characterization of
fractured aquifers, with emphasis on the Serra Geral Aquifer
System (SGAS).

Keywords: Fractured aquifers; hydrochemistry; Serra Geral
Aquifer System.

2.

Hydrodynamics of Fractured Aquifers

Objective: Evaluation of characteristics and hydrodynamic parameters of fractured aquifers. Analysis and interpretation of pumping tests in wells tapping water from fractured aquifers.
Major Area: Exact and Earth Sciences.
Keywords: Hydrodynamics; fractured aquifers.

3.

Hydrogeology of Fractured Aquifers

Objective: Evaluation of geological controls; prospecting studies of fractured aquifers; assessment of groundwater circulation; determination of aquifer vulnerability; delineation of well protection perimeters; assessment of contamination risk; and estimation of recharge in fractured environments, with particular emphasis on the Serra Geral Aquifer System (SGAS).
Major Area: Exact and Earth Sciences.
Keywords: Fractured aquifers; hydrogeological characterization; groundwater circulation; Serra Geral Aquifer System.

4.

Hydrogeology of Coastal Aquifers

Objective: Hydrostratigraphic evaluation and hydrochemical characterization of coastal aquifer systems, with emphasis on the Coastal Quaternary Aquifer System of the State of Rio Grande do Sul.
Keywords: Hydrodynamics and hydrochemistry; hydrostratigraphy; Coastal Quaternary Aquifer System.

Research Projects

2024 – Present

Analysis and Interpretation of Structures Controlling Groundwater Flow and Circulation in the Serra Geral Aquifer System (SGAS), in the Northeastern Region of the State of Rio Grande do Sul

Description: The project aims to monitor natural variations in water levels in fractured aquifers of the SGAS, as well as to identify structural features (water inflow zones) of wells and to evaluate their relationship with recharge processes.
Status: Ongoing; Nature: Research

Members: Pedro Antonio Roehe Reginato - Coordinator / Taison Anderson Bortolin - Member / Paulo Salvadorette - Member / Tiago de Vargas - Member / Franciele Schwanck Carlos - Member / Aline Saupe Abreu - Member.
Funding Agency: RESEARCH SUPPORT FOUNDATION OF THE STATE OF RIO GRANDE DO SUL (FAPERGS) – Financial support.

2021 – Present

Groundwater Resources Management

Description: This project, entitled PROPOSAL FOR APPLIED STUDIES ON WATER RESOURCES MANAGEMENT IN THE NORTHEASTERN REGION OF RIO GRANDE DO SUL, for the FAPERGS 06/2024 call, RESEARCH AND DEVELOPMENT PROGRAM FOCUSED ON CLIMATE DISASTERS is a research proposal consistent with the nature of the three (03) Graduate Studies Programs in Water and Environmental Resources and the two (02) Research Groups and their areas of activity. It brings together the participants' knowledge on topics such as water resources management, surface and groundwater hydrology, erosion and sedimentation, fluvial morphology, urban planning, water quality, and natural disasters.

Status: Ongoing; Nature: Research

Members: Pedro Antonio Roehe Reginato - Member / Taison Anderson Bortolin - Member / Tiago de Vargas - Coordinator / Franciele Schwanck Carlos - Member / Stefano Ballardin - Member / Rossano Belladonna - Member / Volnei Dal Bosco - Member / Luiz Alberto Vedana - Member / Maurício Andrades Paixão - Member / Vinícius Silva Moraes - Member.

2021 – 2024

ANALYSIS OF MONITORING DATA AND ASSESSMENT OF IMPACTS ON WATER RESOURCE QUALITY CAUSED BY ENVIRONMENTAL LIABILITY RECOVERY WORKS IMPLEMENTED IN DEGRADED AREAS OF BELLUNO, RIO PIO, AND EX PATRIMÔNIO, MUNICIPALITIES OF TREVISO AND SIDE

Description: Development of studies and implementation of monitoring systems to assess the existence of environmental impacts in former coal mining extraction areas that were reclaimed. Assessment of the efficiency of the recovery system implemented in the d530nt areas.

Status: Completed; Nature: Research.

Members: Pedro Antonio Roehe Reginato - Member / FERNANDO MAINARDI FAN - Member / Antônio Pedro Viero - Coordinator / Clóvis Gonzatti - Member / Gean Paulo Michel - Member.

2021 – Present

Technical Feasibility Studies for the Disposal of Sanitary Effluents in Soil in the Northern Coastal Region of Rio Grande do Sul

Description: Conducting investigation studies and monitoring areas where sewage infiltration systems have been installed in the coastal plain region of Rio Grande do Sul, to evaluate the efficiency of the systems, as well as the occurrence of contamination processes.

Status: Ongoing; Nature: Research.

Participants: Pedro Antonio Roehe Reginato - Member / Eduardo Guimaraes Barboza - Member / FERNANDO MAINARDI FAN - Member / Antônio Pedro Viero - Coordinator / Clóvis Gonzatti - Member / Gean Paulo Michel - Member / Felipe Caron - Member.

2021 – Present

THE GEOLOGY OF THE COASTAL PROVINCE IN THE MUNICIPALITY OF VIAMÃO, RS

Description: This proposal aims to analyze the stratigraphy of the Coastal Province of Rio Grande do Sul in the Municipality of Viamão, to elucidate geological aspects with potential impact on the management of land use and occupation. This project stems from an extension activity already initiated, which originated from a demand from the community represented by the "No to Landfill, No to Dump" Movement, which sought support from the University to obtain a diagnosis of the geology of the region where there is a project for the installation of a sanitary landfill. From the analyses carried out for the activity, the need for studies to deepen the knowledge about the geological evolution of the region, which comprises the contact between the Uruguayan-Southern Rio Grande Shield and the Pelotas Basin, became evident. In this context, the research project aims to apply direct and indirect methods to obtain surface and subsurface data in order to detail the stratigraphy and analyze aspects related to hydrogeology and geotechnical

characteristics that may influence decision-making regarding land management.

Status: Ongoing; Research: Nature:

Members: Pedro Antonio Roehe Reginato - Coordinator / Maria Luiza Correa da Camara Rosa - Member / Clóvis Gonzatti - Member / Gabriel Schwarzer - Member / FLORA RANGEL DA SILVA CHIARELLI - Member / JOÃO VITOR LONGARAY KENES - Member.

2020 – Present

Hydrogeological, Chemical, and Isotopic Characterization of Groundwater in the Northeastern Portion of the State of Rio Grande do Sul and Southeastern Santa Catarina

Description: This project proposes isotopic and hydrochemical studies of precipitation, surface waters, and groundwater with the objective of characterizing areas of vulnerability, circulation patterns in the aquifer, residence time, and recharge locations, providing data on aquifer variability for a poorly studied region. This information will be important in terms of water management for the municipalities, and the data will be made available to environmental agencies and freely accessible to residents. This can guide future decisions involving the use of groundwater and the selection of drilling points for new wells in the region. Status: Ongoing; Nature: Research.

Members: Pedro Antonio Roehe Reginato, Franciéle Schwanck Carlos - Coordinator / Ronaldo T. Bernardo - Member / Filipe Gaudie Ley Lindau - Member / Kátia Kellem da Rosa - Member / Carina Petsch - Member / Luiz Felipe Velho - Member / Jefferson Cardia Simões - Member.

2016 – Present

HYDROSPHERE

Description: The main objective of this project is to characterize the Serra Geral Aquifer System in order to improve the understanding of the interaction between groundwater and surface water resources in the Paraná Hydrographic Basin. Status: Ongoing; Nature: Research.

Members: Pedro Antonio Roehe Reginato - Member / MARCOS IMÉRIO LEÃO - Member / FERNANDO MAINARDI FAN - Member / Gustavo Barbosa Athayde - Coordinator / Joel Avruch Goldenfum - Member / Carla Sirtori - Member / Rodrigo Cauduro Dias de Paiva - Member.

2015 – 2019

Multipurpose Mapping in the Serra Geral Aquifer System, Paraná State: Potential Areas for Water Extraction for Human Consumption and Natural Vulnerability to Aquifer Contamination

Description: The ultimate goal of this work is to characterize and map, in the Serra Geral Aquifer System, Paraná State, potential areas for the location of highly productive tubular wells, as well as to characterize the natural vulnerability to contamination of this aquifer. It is expected that knowledge of these areas will contribute to scientific information and projects focused on the use of groundwater resources, specifically the SASG in the State of Paraná.

Status: Completed; Nature: Research.

Participants: Pedro Antonio Roehe Reginato - Coordinator / MARCOS IMÉRIO LEÃO - Member / Gustavo Barbosa Athayde - Member / Camila de Vasconcelos Müller Athayde - Member / Alfonso Risso - Member.

2014 – Present

Hydrostratigraphic Compartmentalization and Hydrogeological Characterization of the Aquifer Units that Form the Coastal Quaternary Aquifer System (CQAS) in the Coastal Plain of Rio Grande do Sul

Description: The main objective of this project is to promote the hydrostratigraphic compartmentalization of the Coastal Quaternary Aquifer System by identifying the hydrostratigraphic units that form this system and defining the main hydrogeological, hydrodynamic, and hydrochemical characteristics of each unit. The specific objectives of the project are to: identify the hydrostratigraphic units that form the Coastal Quaternary Aquifer System; evaluate the main hydrogeological characteristics of the units, such as thickness, extent, area of occurrence, recharge area, groundwater circulation, potentialities, and availability of the different units; determine the main hydrodynamic characteristics of the units, such as transmissivity, storage coefficient, hydraulic conductivity, and specific capacity; determine the main hydrochemical characteristics and patterns of the hydrostratigraphic units; and evaluate the isotopic content of groundwater in...

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: January 22, 2026



Pedro Antonio Roehe Reginato

Endereço para acessar este CV: <http://lattes.cnpq.br/7651498922055692>

ID Lattes: **7651498922055692**

Última atualização do currículo em 15/04/2025

Geólogo pela Universidade Federal do Rio Grande do Sul (1993), Mestre em Geociências pela Universidade Federal do Rio Grande do Sul (1996) e Doutor em Engenharia pela Universidade Federal do Rio Grande do Sul (2003). Atualmente é professor do Instituto de Pesquisas Hidráulicas (IPH) da UFRGS, atuando na área de hidrogeologia. Desenvolve atividades de pesquisa na área de sistemas aquíferos fraturados e costeiros voltadas para a caracterização hidrogeológica, avaliação da vulnerabilidade, estimativas da recarga e reservas aquíferas. **(Texto informado pelo autor)**

Identificação

Nome

Pedro Antonio Roehe Reginato 

Nome em citações bibliográficas

REGINATO, P. A. R.; ROEHE REGINATO, PEDRO ANTONIO; REGINATO, PEDRO ANTONIO ROEHE; REGINATO, PEDRO ANTONIO ROEHE; ROEHE REGINATO, PEDRO ANTONIO; REGINATO, PEDRO R.; PEDRO ROEHE ANTONIO REGINATO; REGINATO PEDRO ROEHE ANTONIO; REGINATO, PEDRO ROEHE ANTONIO

Lattes iD



<http://lattes.cnpq.br/7651498922055692>

Orcid iD



<https://orcid.org/0000-0002-9739-7256>

País de Nacionalidade

Brasil

Endereço

Endereço Profissional

Universidade Federal do Rio Grande do Sul, Instituto de Pesquisas Hidráulicas.
Av. Bento Gonçalves, 9500
Agronomia
91501970 - Porto Alegre, RS - Brasil -
Caixa-postal: 15029
Telefone: (51) 535 56416

Formação acadêmica/titulação

1997 - 2003

Doutorado em Engenharia de Minas.
Universidade Federal do Rio Grande do Sul, UFRGS, Brasil.

Título: Integração de Dados para a
Prospecção de Aquíferos Fraturados na
Região Nordeste do Estado do Rio Grande
do Sul, Ano de obtenção: 2004.

Orientador:  Adelir José Strieder.

Bolsista do(a): Coordenação de
Aperfeiçoamento de Pessoal de Nível
Superior, CAPES, Brasil.

Palavras-chave: Hidrogeologia;
prospecção de água subterrânea;
integração de dados.

Grande área: Ciências Exatas e da Terra
Grande Área: Ciências Exatas e da Terra /
Área: Geociências / Subárea: Geologia /
Especialidade: Geologia Ambiental.

Grande Área: Ciências Exatas e da Terra /
Área: Geociências / Subárea: Geologia /
Especialidade: Prospecção Mineral.

Setores de atividade: Recursos Minerais.

1994 - 1996

Mestrado em Geociências.

Universidade Federal do Rio Grande do
Sul, UFRGS, Brasil.

Título: Geologia e Evolução Holocênica da
Região Norte da Planície Costeira do Rio
Grande do Sul  , Ano de Obtenção:
1996.

Orientador: Luiz José Tomazelli.

Bolsista do(a): Conselho Nacional de
Desenvolvimento Científico e Tecnológico,
CNPq, Brasil.

Palavras-chave: geologia costeira;
geologia da planície costeira;
Mapeamento Geológico.

Grande área: Ciências Exatas e da Terra

Setores de atividade: Recursos Minerais.

1989 - 1993

Graduação em Bacharel Em Geologia.

Universidade Federal do Rio Grande do
Sul, UFRGS, Brasil.

Título: Geologia da Faixa II - Projeto
Figueiras - Vau dos Prestes.

Orientador: Luiz Fernandez Avila.

Formação Complementar

2007 - 2007

Contaminação de Poços - Causa e Prevenção. (Carga horária: 8h).
Associação Brasileira de Águas Subterrâneas, ABAS, Brasil.

2006 - 2006

Caracterização e Avaliação de Risco de Contaminação. (Carga horária: 16h).
Associação Brasileira de Águas Subterrâneas, ABAS, Brasil.

2002 - 2002

Extensão universitária em Hidráulica de Poços - Ensaio de Bombeamento. (Carga horária: 32h).
Universidade do Vale do Rio dos Sinos, UNISINOS, Brasil.

2002 - 2002

Extensão universitária em GWW (GROUND WATER FOR WINDOWS). (Carga horária: 45h).
Universidade do Vale do Rio dos Sinos, UNISINOS, Brasil.

2001 - 2001

Extensão universitária em CONTAMINAÇÃO DE SOLOS E ÁGUAS SUBTERRÂNEAS. (Carga horária: 24h).
UNIVERSIDADE DO VALE DO RIO DOS SINOS, UNISINOS, Brasil.

2001 - 2001

POSICIONAMENTO COM GPS. (Carga horária: 12h).
SOCIEDADE BRASILEIRA DE CARTOGRAFIA, SBC, Brasil.

1999 - 1999

GIS, - IMPLANTAÇÃO EM AMBIENTE GENÉRICO. (Carga horária: 8h).
GISBRASIL, GISBRASIL98, Brasil.

1999 - 1999

GIS PARA GESTÃO MUNICIPAL. (Carga horária: 18h).
GISBRASIL, GISBRASIL98, Brasil.

1998 - 1998

GIS PARA CADASTRO. (Carga horária: 9h).
GISBRASIL, GISBRASIL98, Brasil.

1998 - 1998

ORTOFOTOCARTA DIGITAL. (Carga horária: 8h).
GISBRASIL, GISBRASIL98, Brasil.

1997 - 1997

INTRODUÇÃO NO SENSORIAMENTO REMOTO - ENVI. (Carga horária: 40h).
Universidade Federal do Rio Grande do Sul, UFRGS, Brasil.

1995 - 1995

Extensão universitária em AGUAS SUBTERRÂNEAS E POÇOS TUBULARES PROFUNDOS. (Carga horária: 12h).
Universidade Federal do Rio Grande do Sul, UFRGS, Brasil.

1995 - 1995

SEMINÁRIO DE ATUALIZAÇÃO DIDÁTICO PEDAGÓGICA. (Carga horária: 24h).
Universidade de Caxias do Sul, UCS, Brasil.

1993 - 1993

RIMA - RELATÓRIO DE IMPACTO AMBIENTAL. (Carga horária: 40h).
Universidade Federal do Rio Grande do Sul, UFRGS, Brasil.

Atuação Profissional

Universidade Federal do Rio Grande do Sul, UFRGS, Brasil.

Vínculo institucional

2011 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Professor Associado III, Carga horária: 40, Regime: Dedicação exclusiva.

Atividades

02/2025 - Atual

Conselhos, Comissões e Consultoria, Instituto de Geociências.

Cargo ou função
Membro Titular da Comissão de Graduação do curso de Geologia.

08/2024 - Atual

Ensino, Recursos Hídricos e Saneamento Ambiental, Nível: Pós-Graduação

Disciplinas ministradas
Avaliação Quantitativa da Água
Subterrânea

08/2024 - Atual

Conselhos, Comissões e Consultoria,
Instituto de Pesquisas Hidráulicas.

Cargo ou função
Núcleo de Avaliação da Unidade - NAU.

03/2020 - Atual

Ensino, Engenharia Hídrica, Nível:
Graduação

Disciplinas ministradas
Gerenciamento de Aquíferos

03/2018 - Atual

Ensino, Recursos Hídricos e Saneamento
Ambiental, Nível: Pós-Graduação

Disciplinas ministradas
Águas Subterrâneas

03/2018 - Atual

Ensino, Geologia, Nível: Graduação

Disciplinas ministradas
Hidrogeologia II

03/2016 - Atual

Ensino, Recursos Hídricos e Saneamento
Ambiental, Nível: Pós-Graduação

Disciplinas ministradas
Hidrogeologia de Aquíferos Costeiros

08/2014 - Atual

Ensino, Recursos Hídricos e Saneamento
Ambiental, Nível: Pós-Graduação

Disciplinas ministradas
Geologia Aplicada a Desastres Naturais

08/2014 - Atual

Ensino, Recursos Hídricos e Saneamento Ambiental, Nível: Pós-Graduação

Disciplinas ministradas
Hidrogeologia de Aquíferos Fraturados

08/2011 - Atual

Extensão universitária , Instituto de Pesquisas Hidráulicas.

Atividade de extensão realizada
Projetos de Extensão, Palestras, Elaboração de Material Didático para Divulgação de Conehcimentos.

03/2011 - Atual

Pesquisa e desenvolvimento, Instituto de Pesquisas Hidráulicas.

Linhas de pesquisa
Hidroquímica de Aquíferos Fraturados
Hidrodinâmica de Aquíferos Fraturados
Hidrogeologia de Aquíferos Fraturados
Hidrogeologia de Aquíferos Costeiros

**09/2021 -
09/2023**

Conselhos, Comissões e Consultoria, Instituto de Pesquisas Hidráulicas.

Cargo ou função
Membro Participante da Comissão de Extensão do IPH.

**08/2020 -
07/2023**

Conselhos, Comissões e Consultoria, Instituto de Pesquisas Hidráulicas.

Cargo ou função
NDE do curso de Engenharia Ambiental - Membro representante do DHH.

**05/2021 -
02/2023**

Conselhos, Comissões e Consultoria, Instituto de Geociências.

Cargo ou função
Membro do Núcleo Docente Estruturante
do Curso de Geologia.

**02/2021 -
02/2023**

Conselhos, Comissões e Consultoria,
Instituto de Geociências.

Cargo ou função
Membro Titular da Comissão de
Graduação do curso de Geologia.

**01/2017 -
01/2023**

Conselhos, Comissões e Consultoria,
Instituto de Geociências.

Cargo ou função
Comgrad Geologia - Membro
representante de Departamento Externo
ao Curso.

**01/2020 -
08/2022**

Ensino, Engenharia Ambiental, Nível:
Graduação

Disciplinas ministradas
Hidrogeologia Geral

**07/2021 -
12/2021**

Ensino, Agronomia, Nível: Graduação

Disciplinas ministradas
Água Subterrânea para a Agronomia

**09/2019 -
09/2021**

Conselhos, Comissões e Consultoria,
Instituto de Pesquisas Hidráulicas.

Cargo ou função
Membro Participante da Comissão de
Extensão do IPH.

**03/2019 -
03/2020**

Conselhos, Comissões e Consultoria,
Instituto de Pesquisas Hidráulicas.

Cargo ou função
Membro da Comissão de Graduação da
Agronomia.

**05/2018 -
01/2020**

Ensino, Engenharia Ambiental, Nível:
Graduação

Disciplinas ministradas
Água Subterrânea: Contaminação e
Controle

**03/2011 -
01/2020**

Ensino, Engenharia de Minas, Nível:
Graduação

Disciplinas ministradas
Hidrogeologia

**09/2017 -
09/2019**

Conselhos, Comissões e Consultoria,
Instituto de Pesquisas Hidráulicas.

Cargo ou função
Membro Participante e Suplente da
Comissão de Pesquisas do IPH.

**01/2019 -
01/2019**

Conselhos, Comissões e Consultoria,
Instituto de Pesquisas Hidráulicas.

Cargo ou função
Representante Docente da Comissão de
Graduação do curso de Geologia.

**12/2018 -
01/2019**

Direção e administração, Instituto de
Pesquisas Hidráulicas.

Cargo ou função
Chefe do Departamento de Hidromecânica
e Hidrologia do IPH.

**03/2011 -
12/2017**

Ensino, Curso Técnico em Hidrologia,
Nível: Aperfeiçoamento

Disciplinas ministradas
Hidrogeologia (Geologia e Água
Subterrânea)

**09/2015 -
09/2017**

Conselhos, Comissões e Consultoria,
Instituto de Pesquisas Hidráulicas.

Cargo ou função
Membro Coordenador Suplente da
Comissão de Pesquisas do IPH.

**12/2016 -
01/2017**

Conselhos, Comissões e Consultoria,
Instituto de Pesquisas Hidráulicas.

Cargo ou função
Coordenador de Comissão de Pesquisas
do IPH.

**03/2014 -
08/2016**

Ensino, Agronomia, Nível: Graduação

Disciplinas ministradas
Água Subterrânea para Agronomia

**10/2012 -
12/2015**

Ensino, Recursos Hídricos e Saneamento
Ambiental, Nível: Pós-Graduação

Disciplinas ministradas
Água Subterrânea

**03/2013 -
03/2015**

Conselhos, Comissões e Consultoria,
Instituto de Pesquisas Hidráulicas.

Cargo ou função
Suplente de Comissão de Graduação do

2002 - 2004

Vínculo: Responsável Técnico - Geólogo,
Enquadramento Funcional: Contrato de
Cargo e Função junto ao CREA-RS, Carga
horária: 8

Outras informações

Geólogo e responsável técnico da área de
mineração e meio ambiente.

Empresas Diversas - Prestador de Serviços Técnicos de Geologia, AUTONOMO, Brasil.

Vínculo institucional

2002 - 2010

Vínculo: Geólogo, Enquadramento
Funcional: Contrato por Serviço Prestado,
Carga horária: 20

Outras informações

Elaboração de Requerimento de Pesquisa
para Água MineralElaboração de
Relatórios de Pesquisa para Água
MineralDescrição de Meio Físico para
Recuperação de Área
DegradadaElaboração de Laudos
GeológicosElaboração de Projetos de
Recuperação de Áreas Degradadas pela
MineraçãoElaboração de Projetos para
Autorização Prévia para a Perfuração de
PoçosElaboração de Projetos de
Regularização e Outorga de Poços
Estudos de Locação de PoçosAvaliação de
Ensaio de Bombeamento e Elaboração de
Projetos de Bombeamento de Poços

Linhas de pesquisa

1.

Hidroquímica de Aquíferos Fraturados

Objetivo: Avaliação e caracterização
hidroquímica de aquíferos fraturados, com
ênfase para o Sistema Aquífero Serra
Geral (SASG).
Palavras-chave: Aquíferos Fraturados;
Hidroquímica; Sistema Aquífero Serra
Geral.

2.

Hidrodinâmica de Aquíferos Fraturados

Objetivo: Avaliação de características e parâmetros hidrodinâmicos de aquíferos fraturados. Análise e Interpretação de Ensaio de Bombeamento em poços que captam água de aquíferos fraturados..
Grande área: Ciências Exatas e da Terra
Palavras-chave: Hidrodinâmica; Aquíferos Fraturados.

3.

Hidrogeologia de Aquíferos Fraturados

Objetivo: Avaliação dos condicionantes geológicos; estudos de prospecção de aquíferos fraturados; avaliação da circulação de água subterrânea; determinação da vulnerabilidade de aquíferos; delimitação de perímetros de proteção de poços; avaliação do risco de contaminação e estimativa de recargas em ambientes fraturados. A ênfase maior é o estudo do Sistema Aquífero Serra Geral (SASG)..
Grande área: Ciências Exatas e da Terra
Palavras-chave: Aquíferos Fraturados; caracterização hidrogeológica; Circulação de Água; Sistema Aquífero Serra Geral.

4.

Hidrogeologia de Aquíferos Costeiros

Objetivo: Avaliação hidroestratigráfica, caracterização hidroquímica de sistemas aquíferos costeiros com ênfase para o Sistema Aquífero Quaternário Costeiro do estado do Rio Grande do Sul..
Palavras-chave: Hidrodinâmica e Hidroquímica; Hidroestratigrafia; Sistema Aquífero Quaternário Costeiro.

Projetos de pesquisa

2024 - Atual

Análise e interpretação de estruturas condicionantes de fluxo e circulação da água subterrânea no Sistema Aquífero Serra Geral (SASG), na região nordeste do estado do Rio Grande do Sul

Descrição: O projeto tem por objetivo promover o monitoramento das variações naturais dos níveis de água em aquíferos fraturados do SASG, bem como identificar as estruturas (entradas de água) dos poços e avaliar a sua relação com os processos de recarga.

Situação: Em andamento; Natureza:

Pesquisa.

Integrantes: Pedro Antonio Roehe Reginato - Coordenador / Taison Anderson Bortolin - Integrante / Paulo Salvadoretti - Integrante / Tiago de Vargas - Integrante / Franciéle Schwanck Carlos - Integrante / Aline Saupe Abreu - Integrante.
Financiador(es): FUNDAÇÃO DE AMPARO A PESQUISA DO ESTADO DO RIO GRANDE DO SUL - Auxílio financeiro.

2023 - Atual

Gestão de recursos hídricos subterrâneos

Descrição: Este projeto intitulado PROPÔSTA DE ESTUDOS APLICADOS A GESTÃO DE RECURSOS HÍDRICOS NA REGIÃO NORDESTE DO RIO GRANDE DO SUL, para o edital FAPERGS 06/2024 PROGRAMA DE PESQUISA E DESENVOLVIMENTO, VOLTADO A DESASTRES CLIMÁTICOS, é uma proposta de pesquisa fiel à natureza dos 03 (três) Programas de Pós-Graduação em Recursos Hídricos e Ambientais e dos 02 (dois) Grupos de Pesquisa e as suas áreas de atuação, unindo o conhecimento dos participantes sobre os tópicos de gestão de recursos hídricos, hidrologia superficial e subterrânea, erosão e sedimentação, morfologia fluvial, planejamento urbano, qualidade da água e desastres naturais.
Situação: Em andamento; Natureza: Pesquisa.

Integrantes: Pedro Antonio Roehe Reginato - Integrante / Taison Anderson Bortolin - Integrante / Tiago de Vargas - Coordenador / Franciéle Schwanck Carlos - Integrante / Stefano Ballardín - Integrante / Rossano Belladonna - Integrante / Volnei Dal Bosco - Integrante / Luiz Alberto Vedana - Integrante / Maurício Andrades Paixão - Integrante / Vinícius Silva Moraes - Integrante.

2021 - 2024

ANÁLISE DOS DADOS DE MONITORAMENTO E AVALIAÇÃO DOS IMPACTOS NA QUALIDADE DOS RECURSOS HÍDRICOS CAUSADOS PELAS OBRAS DE RECUPERAÇÃO DE PASSIVOS AMBIENTAIS IMPLANTADAS NAS ÁREAS DEGRADADAS DE BELLUNO, RIO PIO E EX PATRIMÔNIO, MUNICÍPIOS DE TREVISÓ E SIDE

Descrição: Desenvolvimento de estudos e implantação de sistemas de monitoramento para avaliar a existência de impactos ambientais em antigas áreas de extração de carvão mineral, que foram recuperadas. Avaliação da eficiência do sistema de recuperação implantado nas diferentes áreas.

Situação: Concluído; Natureza: Pesquisa.

Integrantes: Pedro Antonio Roehe Reginato - Integrante / FERNANDO MAINARDI FAN - Integrante / Antônio Pedro Viero - Coordenador / Clóvis Gonzatti - Integrante / Gean Paulo Michel - Integrante.

2021 - Atual

Estudos de Viabilidade Técnica para Disposição de Efluentes Sanitários em Solo na Região do Litoral Norte do RS

Descrição: Realização de estudos de investigação e monitoramento de áreas onde foram instalados sistemas de infiltração de esgotos, na região da Planície Costeira do RS, para avaliar a eficiência dos sistemas, bem como a ocorrência de processos de contaminação..

Situação: Em andamento; Natureza: Pesquisa.

Integrantes: Pedro Antonio Roehe Reginato - Integrante / Eduardo Guimaraes Barboza - Integrante / FERNANDO MAINARDI FAN - Integrante / Antônio Pedro Viero - Coordenador / Clóvis Gonzatti - Integrante / Gean Paulo Michel - Integrante / Felipe Caron - Integrante.

2021 - Atual

A GEOLOGIA DA PROVÍNCIA COSTEIRA NO MUNICÍPIO DE VIAMÃO, RS

Descrição: A presente proposta possui o objetivo de analisar a estratigrafia da Província Costeira do Rio Grande do Sul no Município de Viamão, a fim de elucidar aspectos geológicos com potencial impacto para a gestão do uso e ocupação do território. O presente projeto decorre de uma ação de extensão já iniciada, que teve origem em demanda da comunidade representada pelo ?Movimento Não ao Aterro, Não a Lixão? que buscou suporte da Universidade para obter um diagnóstico acerca da Geologia da região onde há o projeto para a instalação de um empreendimento de um aterro sanitário. A partir da realização das análises para a ação, ficou evidenciada a necessidade da realização de estudos para aprofundar o conhecimento acerca da evolução geológica da região que compreende o contato entre o Escudo Uruguaio Sul-Rio-Grandense e a Bacia de Pelotas. Neste contexto, o projeto de pesquisa pretende aplicar métodos diretos e indiretos para a obtenção de dados de superfície e de subsuperfície a fim de detalhar a estratigrafia e analisar aspectos relacionados à hidrogeologia e a características geotécnicas que possam

influir na tomada de decisão sobre a gestão do território.

Situação: Em andamento; Natureza: Pesquisa.

Integrantes: Pedro Antonio Roehe Reginato - Coordenador / Maria Luiza Correa da Camara Rosa - Integrante / Clóvis Gonzatti - Integrante / Gabriel Schwarzer - Integrante / FLORA RANGEL DA SILVA CHIARELLI - Integrante / JOÃO VITOR LONGARAY KENES - Integrante.

2020 - Atual

Caracterização hidrogeológica, química e isotópica das águas subterrâneas da porção nordeste do estado do Rio Grande do Sul e sudeste de Santa Catarina

Descrição: Este projeto propõe o estudo isotópico e hidroquímico da precipitação, águas superficiais e águas subterrâneas com o objetivo de caracterizar áreas de vulnerabilidade, padrões de circulação no aquífero, tempo de residência e locais de recarga, provendo dados da variabilidade do aquífero para uma região pouco estudada. Essas informações serão importantes em termos de gestão de água para os municípios e os dados serão disponibilizados para as secretarias de meio ambiente e serão de livre acesso aos moradores. O que pode nortear decisões futuras envolvendo a utilização de águas subterrâneas e a seleção de pontos de perfuração de novos poços na região.

Situação: Em andamento; Natureza: Pesquisa.

Integrantes: Pedro Antonio Roehe Reginato - Integrante / Franciéle Schwanck Carlos - Coordenador / Ronaldo T. Bernardo - Integrante / Filipe Gaudie Ley Lindau - Integrante / Kátia Kellem da Rosa - Integrante / Carina Petsch - Integrante / Luiz Felipe Velho - Integrante / Jefferson Cardia Simões - Integrante.

2016 - Atual

HIDROSFERA

Descrição: O projeto tem por objetivo principal caracterizar o Sistema Aquífero Serra Geral com vistas a melhorar o entendimento da interação entre os recursos hídricos subterrâneos e superficiais na Bacia Hidrográfica Paraná 3..

Situação: Em andamento; Natureza: Pesquisa.

Integrantes: Pedro Antonio Roehe Reginato - Integrante / MARCOS IMERIO LEÃO - Integrante / FERNANDO MAINARDI FAN - Integrante / Gustavo Barbosa Athayde - Coordenador / Joel Avruch Golder - Integrante / Carla

2015 - 2019

Mapeamento Multifinalitário no Sistema Aquífero Serra Geral, Estado do Paraná: Áreas Potenciais a Captação para Consumo Humano e Vulnerabilidade Natural a Contaminação do Aquífero

Descrição: O objetivo final deste trabalho compreende caracterizar e cartografar, no Sistema Aquífero Serra Geral, Estado do Paraná, áreas potenciais à locação de poços tubulares com elevada produtividade, bem como, caracterizar a vulnerabilidade natural à contaminação deste aquífero. Espera-se que o conhecimento destas áreas contribua com informações científicas, projetos voltados à utilização dos mananciais subterrâneos, em específico o SASG no Estado do Paraná.

Situação: Concluído; Natureza: Pesquisa.

Integrantes: Pedro Antonio Roehe Reginato - Coordenador / MARCOS IMÉRIO LEÃO - Integrante / Gustavo Barbosa Athayde - Integrante / Camila de Vasconcelos Müller Athayde - Integrante / Alfonso Risso - Integrante.

2014 - Atual

Compartimentação HIdroestratigráfica e Caracterização Hidrogeológica das Unidades Aquíferas que Formam o Sistema Aquífero Quaternário Costeiro (SAQC) na Planície Costeira do Rio Grande do Sul

Descrição: O projeto tem por objetivo principal promover a compartimentação hidroestratigráfica do Sistema Aquífero Quaternário Costeiro, identificando as unidades hidroestratigráficas que formam esse sistema e definir as principais características hidrogeológicas, hidrodinâmicas e hidroquímicas de cada uma das unidades. Os objetivos específicos do projeto são: - identificar as unidades hidroestratigráficas que formam o Sistema Aquífero Quaternário Costeiro; - avaliar as principais características hidrogeológicas das unidades como espessuras, extensão, área de ocorrência, área de recarga, circulação da água subterrânea; potencialidades e disponibilidades das diferentes unidades; - determinar as principais características hidrodinâmicas das unidades como transmissividade, coeficiente de armazenamento, condutividades hidráulicas, capacidades específicas; - determinar as principais características e padrões hidroquímicos das unidades hidroestratigráficas; - avaliar o conteúdo isotópico das águas subterrâneas das

July 23, 2025
Lajeado, Rio Grande do Sul, Brazil

To the United States Citizenship and Immigration Services,

Dear Sir or Madam,

My name is Dr. Cristiano Danieli, and I am the Co-Owner and Senior Geologist at KONDA Geologia Ambiental LTDA. Over my career, I have worked in environmental and engineering geology, supervising teams, managing client deliverables, and ensuring that technical work meets regulatory and quality standards. In addition to my professional practice, I maintain an active role in coordinating services and guiding the preparation of technical reports and field activities. Throughout this period, I have signed more than 500 ARTs, reflecting the breadth of projects under my responsibility.

I met Mr. Rafael Lima Dessart during our undergraduate studies at UNISINOS (1998–2002). Since then, we have maintained professional contact. Over the years, we have exchanged technical perspectives on geological and environmental matters in ways that helped strengthen the quality of analyses and confirm methodological choices when dealing with practical constraints in the field and reporting. In these interactions, Mr. Dessart consistently demonstrated sound judgment, attention to data integrity, and clear communication, traits that are essential in the interface between technical teams, clients, and regulators.

From a business and operational standpoint, what stands out in Mr. Dessart's work is his reliable integration of geological reasoning into concrete deliverables. He is disciplined in gathering the data that matters, he structures the interpretation so findings remain auditable, and he communicates implications and limitations with clarity. That approach helps teams meet deadlines without compromising technical rigor and supports decision-making in areas such as environmental assessments, site investigations, and groundwater-related studies.

His ability to translate complex geological concepts into practical applications has led to valuable solutions that are both effective and replicable. Notably, in our numerous brainstorming sessions, the recommendations he made, ranging from maximizing materials usage to refining groundwater monitoring approaches, proved beneficial for my office's insights and for other professionals who later adopted similar methodologies in their respective projects.

I am confident that, in the United States, Mr. Dessart's proven expertise in Environmental and Geotechnical Geology will serve national interests. His advanced expertise can directly support critical sectors such as infrastructure development, environmental protection, and sustainable resource management. The thorough, science-based approaches he employs can aid in solving geoenvironmental challenges while exceeding established regulatory benchmarks, ultimately benefiting local communities and the broader national economy.

Therefore, I fully endorse Mr. Dessart for any endeavors he may pursue, including the immigration process. His extensive experience, strategic mindset, and dedication to excellence make him a valuable asset to the U.S. geosciences sector,

and I am convinced that his contributions will significantly advance national and environmental interests.

Cordially,

A handwritten signature in black ink, appearing to read 'Cristiano Danieli', with a stylized flourish at the end.

Mr. Cristiano Danieli

Geologist and Co-Owner at KONDA Geologia Ambiental LTDA

E-mail: cristianodanieli80@gmail.com

Phone: +55 51 999089809



Cristiano Danieli

Link to access this Curriculum: <http://lattes.cnpq.br/2852051379255323>

Lattes ID: **2852051379255323**

Last update of the curriculum on 02/19/2009

Holds a degree in Geology from the Federal University of Rio Grande do Sul (2008). Currently is a co-owner – KONDA GEOLOGIA AMBIENTAL LTDA. Has experience in the field of Geosciences, with emphasis on Geochemistry, Environmental Geology, and Hydrogeology. **(Text provided by the author)**

Identification

Name	Cristiano Danieli
Name in bibliographic citations	DANIELI, Cristiano
Lattes iD	 http://lattes.cnpq.br/2852051379255323

Address

Professional Address	KONDA GEOLOGIA AMBIENTAL LTDA. RUA SERGIPE, 315 SÃO CRISTÓVÃO 95900-000 - Lajeado, Rio Grande do Sul - Brazil Phone: (51) 98254231 Fax: (51) 5137144381 Homepage URL: http://www.creadigital.br/rs/kondageologia
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Academic Background/degrees

2003 - 2008	Bachelor's degree in Geology. Federal University of Rio Grande do Sul, UFRGS, Brazil. Title: Physical and chemical characterization and evaluation of the adsorptive potential for metals of clays and mineral coal ashes. Advisor: Antônio Pedro Viero. Scholarship: National Council for Scientific and Technological Development
1999 Interrupted	Undergraduate studies interrupted in 2002 in Geology. University of Vale do Rio dos Sinos, UNISINOS, Brazil. Advisor: Delia del Pilar Montesinos de Almeida. Scholarship: Research Support Foundation of the State of Rio Grande do Sul. Year of interruption: 2002

Work Experience

KONDA GEOLOGIA AMBIENTAL Ltda, KONDA, Brazil.

Institutional Affiliation

2007 - Present	Affiliation: PARTNER-OWNER, Title: PARTNER-OWNER, Workload: 44h
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Federal University of Rio Grande do Sul, UFRGS, Brazil.

Institutional Affiliation

2007 - 2008	Affiliation: Undergraduate Research Scholar, Title: Scholarship holder, Workload: 20h
Additional information	Researcher in the Area of Mineral Coal - geochemical and environmental aspects

Institutional Affiliation

2005 - 2006	Affiliation: student - scholarship holder, Title: researcher, Workload: 16h
Additional information	Project: Fluoride in Groundwater of the Serra Geral Aquifer System in Rio Grande do Sul: origin and geological 552 ols, Advisor: Ari Roisenberg

Institutional Affiliation

2002 - 2002

Additional information

Affiliation: Undergraduate Research Scholar, Title: researcher, Workload: 20h
Project: Integrated study of the volcano-sedimentary rocks of the Camaquã Basin: the time-space distribution of elements and their economic significance, Advisor: Delia del Pilar Montesinos de Almeida

Other Projects

Assessment of the Feasibility of Using Mineral Coal, Coal Residual Ashes, and Coal Mine Tailings for Heavy Metal Adsorption: Iruí Mine - Cachoeira do Sul/RS
Status: Discontinued; Type: Other.

Members: Cristiano Danieli - Coordinator.

Areas of expertise

1. Broad area: Exact and Earth Sciences / Area: Geosciences / Subarea: Geology/Specialty: Geochemistry.
2. Broad area: Exact and Earth Sciences / Area: Geosciences / Subarea: Geology/Specialty: Environmental Geology.
3. Broad area: Exact and Earth Sciences / Area: Geosciences / Subarea: Geology/Specialty: Hydrogeology.
4. Broad area: Exact and Earth Sciences / Area: Geosciences / Subarea: Geology/Specialty: Petrology.

Languages

English

Understands Well, Speaks Well, Reads Well, Writes Moderately.

Spanish

Understands Well, Speaks Well, Reads Well, Writes Moderately.

Awards and titles

2005

HIGHLIGHT: 17TH UNDERGRADUATE RESEARCH FAIR, PROPEQS - UFRGS.

Productions

Bibliographical Production

Oral Presentations

1. ★ **DANIELI, Cristiano**; VIERO, AP. . Assessment of the Potential Use of Mineral Coal, Coal Ash, and Coal Mine Tailings for Heavy Metal Adsorption. 2008. (Oral Presentation/Congress).
2. ★ ARI ROISENBERG ; ARTHUR ; FACHEL, J. ; MESQUITA, G. ; **DANIELI, Cristiano** . ORIGIN OF FLUORIDE IN THE WATERS OF THE SERRA GERAL AQUIFER SYSTEM IN RIO GRANDE DO SUL: AN APPROACH USING STATISTICAL TOOLS. 2007. (Oral Presentation/Congress).
3. ★ **DANIELI, Cristiano**; ARTHUR NANNI . FLUORIDE IN GROUNDWATER OF THE SERRA GERAL AQUIFER IN RIO GRANDE DO SUL: ORIGIN AND GEOLOGICAL CONTROLS. 2005. (Oral Presentation/Congress).

Events

Participation in events, conferences, exhibitions, and fairs

1. 11TH BRAZILIAN CONGRESS OF GEOCHEMISTRY. ORIGIN OF FLUORIDE IN THE WATERS OF THE SERRA GERAL AQUIFER SYSTEM IN RIO GRANDE DO SUL: AN APPROACH USING STATISTICAL TOOLS. 2007. (Congress).
2. 2ND ACADEMIC WEEK OF GEOLOGY. 2002. (Symposium).

3. ACADEMIC WEEK OF GEOLOGY. 2001. (Symposium).

Organization of events, conferences, exhibitions, and fairs

1. **DANIELI, Cristiano.** 2ND ACADEMIC WEEK OF GEOLOGY. 2002. (Congress).

Other relevant information

Experience in Environmental Consulting and Environmental Solutions since 01/2007.

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I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: January 26, 2026.



Cristiano Danieli

Endereço para acessar este CV: <http://lattes.cnpq.br/2852051379255323>

ID Lattes: **2852051379255323**

Última atualização do currículo em 19/02/2009

Possui graduação em Geologia pela Universidade Federal do Rio Grande do Sul (2008). Atualmente é sócio-proprietário - KONDA GEOLOGIA AMBIENTAL LTDA. Tem experiência na área de Geociências, com ênfase em Geoquímica, Geologia Ambiental e Hidrogeologia. **(Texto informado pelo autor)**

Identificação

Nome	Cristiano Danieli
Nome em citações bibliográficas	DANIELI, Cristiano
Lattes iD	 http://lattes.cnpq.br/2852051379255323

Endereço

Endereço Profissional	KONDA GEOLOGIA AMBIENTAL LTDA. RUA SERGIPE, 315 SÃO CRISTÓVÃO 95900-000 - Lajeado, RS - Brasil Telefone: (51) 98254231 Fax: (51) 5137144381 URL da Homepage: http://www.creadigital.br/rs/kondageologia
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Formação acadêmica/titulação

2003 - 2008	Graduação em Geologia. Universidade Federal do Rio Grande do Sul, UFRGS, Brasil. Título: Caracterização física e química e avaliação do potencial adsorptivo para metais de argilas e cinzas de carvão mineral. Orientador: Antônio Pedro Viero. Bolsista do(a): Conselho Nacional de Desenvolvimento Científico e Tecnológico.
1999 interrompida	Graduação interrompida em 2002 em Geologia. Universidade do Vale do Rio dos Sinos, UNISINOS, Brasil. Orientador: Delia del Pilar Montesinos de Almeida. Bolsista do(a): Fundação de Amparo à Pesquisa do Estado do Rio Grande do Sul. Ano de interrupção: 2002

Atuação Profissional

KONDA GEOLOGIA AMBIENTAL LTDA, KONDA, Brasil.

Vínculo institucional

2007 - Atual	Vínculo: SÓCIO-PROPRIETÁRIO, Enquadramento Funcional: SÓCIO-PROPRIETÁRIO, Carga horária: 44
---------------------	---

Universidade Federal do Rio Grande do Sul, UFRGS, Brasil.

Vínculo institucional

2007 - 2008	Vínculo: Bolsista Iniciação Científica, Enquadramento Funcional: Bolsista, Carga horária: 20
--------------------	--

Outras informações

Vínculo institucional

2005 - 2006	Vínculo: estudante - bolsista, Enquadramento Funcional: pesquisador, Carga horária: 16
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Outras informações

Projeto: O Flúor em águas subterrâneas do Sistema Aquífero Serra Geral no Rio Grande do Sul: origem e condições geológicas
Orientador: Ari Roisenberg

Vínculo institucional

2002 - 2002

Vínculo: Bolsista de iniciação científica, Enquadramento Funcional: pesquisador, Carga horária: 20

Outras informações

Projeto: Estudo integrado das rochas vulcano-sedimentares da Bacia do Camaquã: a distribuição tempo-espço dos elementos e a sua importância econômica Orientadora: Delia del Pilar Montesinos de Almeida

Outros Projetos

Avaliação da Viabilidade da Utilização de Carvão Mineral, Cinzas Residuárias de Carvão e Rejeitos de Minas de Carvão na Adsorção de Metais Pesados: Mina do Iruí - Cachoeira do Sul/RS

Situação: Desativado; Natureza: Outra.

Integrantes: Cristiano Danieli - Coordenador.

Áreas de atuação

1. Grande área: Ciências Exatas e da Terra / Área: Geociências / Subárea: Geologia/Especialidade: Geoquímica.
2. Grande área: Ciências Exatas e da Terra / Área: Geociências / Subárea: Geologia/Especialidade: Geologia Ambiental.
3. Grande área: Ciências Exatas e da Terra / Área: Geociências / Subárea: Geologia/Especialidade: Hidrogeologia.
4. Grande área: Ciências Exatas e da Terra / Área: Geociências / Subárea: Geologia/Especialidade: Petrologia.

Idiomas

Inglês

Compreende Bem, Fala Bem, Lê Bem, Escreve Razoavelmente.

Espanhol

Compreende Bem, Fala Bem, Lê Bem, Escreve Razoavelmente.

Prêmios e títulos

2005

DESTAQUE XVII SALÃO DE INICIAÇÃO CIENTÍFICA, PROPESQ - UFRGS.

Produções

Produção bibliográfica

Apresentações de Trabalho

1. ★ **DANIELI, Cristiano**; VIERO, A. P. . Avaliação do Potencial de utilização de Carvão Mineral, Cinzas de Carvão e Rejeitos de Minas de Carvão na Adsorção de Metais Pesados. 2008. (Apresentação de Trabalho/Congresso).
2. ★ ARI ROISENBERG ; ARTHUR ; FACHEL, J. ; MESQUITA, G. ; **DANIELI, Cristiano** . ORIGEM DO FLÚOR EM ÁGUAS DO SISTEMA AQUÍFERO SERRA GERAL NO RIO GRANDE DO SUL: UMA APROXIMAÇÃO ATRAVÉS DE FERRAMENTAS ESTATÍSTICAS. 2007. (Apresentação de Trabalho/Congresso).
3. ★ **DANIELI, Cristiano**; ARTHUR NANNI . O FLÚOR EM ÁGUAS SUBTERRÂNEAS DO AQUÍFERO SERRA GERAL NO RIO GRANDE DO SUL: ORIGEM E CONDICIONAMENTO GEOLÓGICO. 2005. (Apresentação de Trabalho/Outra).

Eventos

Participação em eventos, congressos, exposições e feiras

1. XI CONGRESSO BRASILEIRO DE GEOQUÍMICA. ORIGEM DO FLÚOR EM ÁGUAS DO SISTEMA AQUÍFERO SERRA GERAL NO RIO GRANDE DO SUL: UMA APROXIMAÇÃO ATRAVÉS DE FERRAMENTAS ESTATÍSTICAS. 2007. (Congresso).
2. II SEMANA ACADÊMICA DE GEOLOGIA. 2002. (Simpósio) **557**

3. SEMANA ACADÊMICA DE GEOLOGIA. 2001. (Simpósio).

Organização de eventos, congressos, exposições e feiras

1. **DANIELI, Cristiano.** II SEMANA ACADÊMICA DE GEOLOGIA. 2002. (Congresso).

Outras informações relevantes

Atuação em Consultoria Ambiental e Soluções Ambientais desde 01/2007.

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July 29, 2025

E-mail: jacson.gosman@ifsc.edu.br
Phone: +55 (46) 991111989

To USCIS,

I am Dr. Jacson Gosman Gomes de Lima, a professor at the Instituto Federal de Santa Catarina (IFSC) – Campus São Lourenço do Oeste. My work spans teaching, research, and extension activities in the geosciences, with emphasis on geomorphology, geoprocessing, and the application of geoscientific methods to environmental and territorial challenges. This professional background has allowed me to collaborate with multidisciplinary teams and to guide students and practitioners on technically sound approaches to landscape analysis and decision-making.

I had the distinct opportunity to meet Mr. Rafael Lima Dessart during a Geophysics course in a graduate setting in Curitiba, Paraná, and later worked with him in field activities connected to his doctoral training. In those contexts, I observed a professional with strong discipline, reliable teamwork, and consistent attention to methodological rigor. In particular, he was precise in the analysis and interpretation of geological structures and supported our group's activities in both field and classroom environments with clarity and technical care.

From my direct interactions with Mr. Dessart, three qualities stand out. First, he learns and integrates new geoscientific tools effectively into workflows, using them to frame geological questions and to organize the steps of data collection and interpretation. Second, he communicates clearly across backgrounds, bridging geomorphology and geoprocessing with geology and geophysics, which helps align field tasks and improves the reliability of the resulting interpretations. Third, he maintains professional conduct under operational constraints, balancing safety, time, and quality standards in the field.

Mr. Dessart distinguishes himself through a research-driven mindset and solutions that exceed typical industry expectations. Colleagues who have witnessed his work routinely comment on the precision and comprehensiveness of his findings, placing him squarely at the forefront of professionals operating in mining exploration, geological mapping, and hydrogeological studies. An illustrative example of his competence arose during our joint field assignments, where he introduced advanced geophysical tools to refine subsurface mapping. His methodologies were subsequently adopted by our broader research team and sparked interest in other institutions facing similar geological inquiries. The willingness of numerous colleagues to adopt these practices testifies to the significant added value that his projects bring to the scientific community.

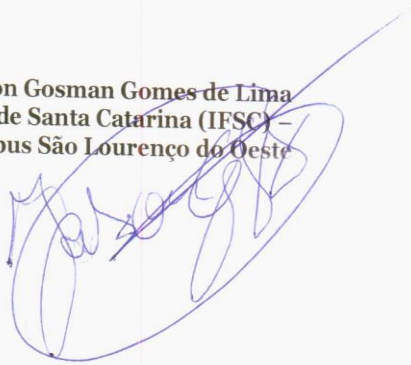
In light of the above, and based on what I personally observed in coursework and field activities, I wholeheartedly support Mr. Rafael Lima Dessart for the EB-2 NIW. His ability to connect geomorphological insight, geospatial analysis, and geological reasoning into practical, auditable deliverables would be valuable to U.S. institutions that rely on dependable geoscientific evidence to inform public

and private decisions. Should additional clarification about my assessment or our joint activities be required, I remain available to provide further details.

I stand ready to furnish any additional details or aid you may require.

Sincerely,

Jacson Gosman Gomes de Lima
Professor, Instituto Federal de Santa Catarina (IFSC) –
Campus São Lourenço do Oeste
São Lourenço do Oeste, Santa Catarina, B





Jacson Gosman Gomes de Lima

Link to access this Curriculum: <http://lattes.cnpq.br/7823730450433630>

Lattes ID: **7823730450433630**

Last update of the curriculum on 06/02/2025

Graduated with a Full Teaching Degree in Geography (2010), Master's degree (2013) and a PhD (2020) in Geography - research line Dynamics, Use, and Preservation of the Environment, from the State University of Western Paraná - UNIOESTE. Member of the research group Genesis and Evolution of Geomorphic Surfaces and Surficial Formations at the State University of Western Paraná. Leader of the research group RESEARCH, EDUCATION, AND INTERDISCIPLINARITY. Has expertise in the field of Geosciences, mainly in geology, geomorphology, pedology, and mapping. Currently a permanent full-time professor (DE) at the Federal Institute of Santa Catarina – IFSC - São Lourenço do Oeste campus, teaching in FIC (*Initial and Continuing Education*) courses, and in Integrated, Undergraduate and Graduate programs. At the institution, he has been especially dedicated to themes related to human rights and ethnic-racial issues. **(Text provided by the author)**

Identification

Name

Jacson Gosman Gomes de Lima 

Name in bibliographic citations

LIMA, J. G. G. ;GOMES DE LIMA, JACSON GOSMAN;LIMA, JACSON GOSMAN GOMES DE; LIMA, JACSON GOSMAN

Lattes iD



<http://lattes.cnpq.br/7823730450433630>

Country of Nationality

Brazil

Address

Professional Address

Federal Institute of Santa Catarina, São Miguel do Oeste Campus.
Rua 22 de Abril, 244
São Luiz
89900000 - São Miguel do Oeste, SC - Brazil
Phone: (49) 36310408
Homepage URL: <http://smo.ifsc.edu.br/>

Academic Background/degrees

2017 - 2020

Doctorate in Geography.
State University of Western Paraná,
UNIOESTE, Brazil.
Title: Structural and tectonic influence on

the relief of the central sector of the Araucaria Plateau 🌿 Year of completion: 2020.
Advisor: 👤 Marga Eliz Pontelli.
Co-advisor: Andrea Cristina Lima dos Santos Matos.

2011 - 2013

Master's Degree in Geography.
State University of Western Paraná,
UNIOESTE, Brazil.
Title: Occurrence and Genesis of altered lava flow beneath fresh rock in the Palmas Plateau (PR) / Água Doce (SC) 🌿 , Year of Completion: 2013.
Advisor: 👤 Marga Eliz Pontelli.
Fellow: Coordination for the Improvement of Higher Education Personnel, CAPES, Brazil.

2007 - 2010

Bachelor's Degree in Geography.
State University of Western Paraná,
UNIOESTE, Brasil.

2004 - 2006

High School.
Mário de Andrade State School - Elementary, Secondary, Higher Education, and Vocational Training, CEMA (*Center for Teacher Education and Training*), Brazil.

2000 - 2003

Elementary Education.
Léo Flach State School - Elementary and Secondary Education, CELF, Brazil.

Complementary Education

2023 - 2023

Learning Experiences and Digital Culture. (Workload: 30h).
UNINA COLLEGE, UNINA, Brazil.

2020 - 2021

School Administration: theory and practice. (Workload: 60h).
UNINA COLLEGE, UNINA, Brazil.

2020 - 2020

The BNCC in the Final Years of Elementary Education: Geography. (Workload: 40h).
AVAMEC - EDUCATIONAL PLATFORM OF THE MINISTRY OF EDUCATION (MEC), AVAMEC, Brazil.

2018 - 2018

ANTARCTICA: CURIOSITIES AND ACCOUNTS FROM POLAR RESEARCHERS. (Workload: 4h).
State University of Western Paraná,
UNIOESTE, Brazil.

2017 - 2017

Impact of Climate Change on Municipal Management. (Workload: 20h).
National School of Public Administration,
ENAP, Brazil.

2017 - 2017

Iguaçu River Basin - Physical Characteristics determining the economy.... (Workload: 4h).
State University of Western Paraná,
UNIOESTE, Brazil.

2017 - 2017

Introduction to Mineralogy and the use of x-ray diffractogram.... (Workload: 4h).
State University of Western Paraná,
UNIOESTE, Brazil.

2017 - 2017

Theoretical and methodological foundations for geomorphological mapping.... (Workload: 4h).
State University of Western Paraná,
UNIOESTE, Brazil.

2016 - 2016

Social Control (Workload: 20h).
National School of Public Administration,
ENAP, Brazil.

2016 - 2016

Continuing education for newly hired faculty of the Federal Education Network. (Workload: 80h).
Federal Institute of Santa Catarina, IFSC,
Brazil.

2015 - 2015

Ethics and Public Service. (Workload: 20h).
National School of Public Administration,
ENAP, Brazil.

2015 - 2015

Citizen Services. (Workload: 20h).
National School of Public Administration,
ENAP, Brazil.

2015 - 2015

Water in the right measure. (Workload: 20h).
National Water Agency, ANA, Brazil.

2015 - 2015

Water and Forest: Sustainable Use in the Caatinga. (Workload: 10h)
National Water Agency, ANA, Brazil.

2015 - 2015

Caring for Water. (Workload: 40h).
National Water Agency, ANA, Brazil.

2015 - 2015

Planning, Management, and Administration of Basins.
(Workload: 40h).
National Water Agency, ANA, Brazil.

2015 - 2015

Monitoring the water quality of rivers and
reservoirs. (Workload: 40h).
National Water Agency, ANA, Brazil.

2015 - 2015

Distance Education: principles and guidelines.
(Workload: 60h).
Federal Institute of Santa Catarina, IFSC,
Brazil.

2014 - 2014

Relief analysis using radar data.
(Workload: 4h).
State University of Western Paraná,
UNIOESTE, Brazil.

2009 - 2009

The importance of pedology and geomorphology in
urban and agricultural planning. (Workload: 4h).
State University of Western Paraná,
UNIOESTE, Brazil.

2008 - 2008

The use of technological resources in Geography
Teaching. (Workload: 8h).
State University of Western Paraná,
UNIOESTE, Brazil

2008 - 2008

Personal and professional development course.
(Workload: 27h).
Center for Integration of Company and
School (CIEE/PR), Brazil.

Work Experience

State University of Western Paraná, UNIOESTE, Brazil.

Institutional Affiliation

2013 - 2014

Affiliation: , Job Title: Assistant
Professor, Workload: 24h

Additional information

Courses taught in 2013: - Applied Mathematics
for geotechnologies; - Basic cartography;
- Geology; - Thematic and digital cartography;
Courses taught in 2014: - General Geology;
- Geomorphology;

Activities

02/2014 - 11/2014

Councils, Commissions and Consulting,
State University of Western Paraná.

Position or role
Faculty member of the Geography program
committee, Full teaching degree modality.

07/2013 - 12/2013

Councils, Commissions and Consulting,
State University of Western Paraná.

Position or role
Faculty member of the Geography program
committee, Bachelor's degree modality.

Águia School - Francisco Beltrão, CAFB, Brazil.

Institutional Affiliation

2014 - 2014

Affiliation: Visiting Professor, Job Title: Elementary
School Teacher., Workload: 4h

Additional information

Teaching Geography classes for the 6th year of
Elementary School.

Secretariat of Education of the State of Paraná, SEED, Brazil.

Institutional Affiliation

2014 - 2014

Affiliation: Employee, Job Title: Elementary and
Secondary School Teacher, Workload: 36h

Additional information

Teaching Geography classes for elementary
and secondary school groups in several schools.

Federal Institute of Santa Catarina, IFSC, Brazil.

Institutional Affiliation

2014 - Present

Affiliation: Public Servant, Job Title: High school,
Technical and Technological Education Teacher,
Workload: 40h, Regime: Full-time

Additional information

Joined the Institution on 11/2014, at the Gaspar campus, shortly thereafter transferred to the São Miguel do Oeste campus (01/2015). Taught the curricular units (CUs) of Geography and Waste Management in (2015); Taught the CUs of Geography and Agrarian Geography in (2016); Taught Geography until 07/2017; Took leave for qualification from 07/2017 to 07/2020; In 2024 transferred from the São Miguel do Oeste campus to the São Lourenço do Oeste campus via removal.

Activities

04/2023 - Present

Councils, Commissions and Consulting,
Federal Institute of Santa Catarina - São Miguel do Oeste campus.

Position or Role

Member of the Afro-Brazilian and Indigenous Studies Center - NEABI, IFSC São Miguel do Oeste Campus.

06/2022 - Present

Councils, Commissions and Consulting,
Federal Institute of Santa Catarina - São Miguel do Oeste campus.

Position or Role

Working group for the preparation of a pilot remote work project at the São Miguel do Oeste campus.

04/2022 - Present

Councils, Commissions and Consulting,
Federal Institute of Santa Catarina - São Miguel do Oeste campus.

Position or Role

Local committee of IFSC Sustainable - São Miguel do Oeste campus

08/2021- Present

Councils, Commissions and Consulting,
Federal Institute of Santa Catarina - São Miguel do Oeste campus.

Position or Role

Committee of Heteroidentification regarding the verification of the condition declared by candidates registered for vacancies reserved for black individuals (black and brown) in IFSC calls, São Miguel do Oeste campus.

06/2021- Present

Councils, Commissions and Consulting, Federal Institute of Santa Catarina - São Miguel do Oeste campus.

Position or Role
Member.

03/2021 - 04/2022

Councils, Commissions and Consulting, Federal Institute of Santa Catarina - São Miguel do Oeste campus.

Position or Role
Coordinator of the local committee of the University pact for the promotion of respect for diversity, the culture of peace, and human rights.

06/2021 - 09/2021

Councils, Commissions and Consulting, Federal Institute of Santa Catarina - São Miguel do Oeste campus.

Position or Role
Member.

10/2020 - 04/2021

Councils, Commissions and Consulting, Federal Institute of Santa Catarina - São Miguel do Oeste campus.

Position or Role
To constitute a Working Group responsible for the implementation and regulation of the Afro-Brazilian and Indigenous Studies Center - NEABI at the São Miguel do Oeste campus..

05/2017 - 06/2017

Councils, Commissions and Consulting, Federal Institute of Santa Catarina - São Miguel do Oeste campus.

Position or Role
Simplified selection process commission for hiring substitute professors (Internal Ordinance No. 142/2017) - Member of the Examining Committee.

06/2016 - 06/2017

Councils, Commissions and Consulting, Federal Institute of Santa Catarina - São Miguel do Oeste campus.

Councils, Commissions and Consulting,
Federal Institute of Santa Catarina - São
Miguel do Oeste campus.

Position or Role

Member of the Entrance Exam Committee at the
São Miguel do Oeste campus.

09/2015 - 10/2015

Councils, Commissions and Consulting,
Federal Institute of Santa Catarina - São
Miguel do Oeste campus.

Position or Role

Member of the Organizing Committee of the National
Science and Technology Week at the campus.

02/2015 - 03/2015

Councils, Commissions and Consulting,
Federal Institute of Santa Catarina - São
Miguel do Oeste campus.

Position or Role

Member of the Electoral Committee that organized
the selection process for the PRONATEC Deputy
Coordinator of the campus. And alternate
technical-administrative representative of the campus
Collegiate..

Research projects

2023 - Present

The socioeconomic profile of students in the integrated
technical courses at the Federal Institute of Santa
Catarina, São Miguel do Oeste campus (IFSC-SMO),
from a geographical perspective

Description: Federal Institutes were created to meet
educational and labor demands in alignment with
socioeconomic, educational, and civic inclusion. In this
context, the present research proposal aims to
understand to what extent the institution is fulfilling its
formative and inclusive role, encompassing social groups
historically segregated in Brazilian society. Therefore,
this investigation will be developed with the purpose of
quantitatively and qualitatively evaluating through the
application of electronic questionnaires the
socioeconomic and cultural profile of students in the
integrated technical courses at IFSC - São Miguel do
Oeste Campus, providing an overall profile of these
students, as well as understanding the processes of
access, retention, and academic success.

Status: Ongoing; Nature: Research.

Members: Jacson Gosman Gomes de Lima –
Coordinator / Alessandro Eleutério de Oliveira
- Member.

2021 - 2022

Geomorphological characterization of the relief of São Miguel do Oeste - SC

Description: Abstract - The relief forms the basis of society, as all human activities are developed upon it, therefore, studying it is of utmost importance. Despite this importance, many regions are still little known from a geomorphological perspective. The extreme west of Santa Catarina and the municipality of São Miguel do Oeste fall into this context. Thus, this research aims to contribute to the understanding of the regional geomorphological framework, helping to fill the existing gap in knowledge about the relief. For the development of this research, methodologies will be applied mainly based on the use of geotechnologies. In the different stages, the following will be carried out: general characterization of the relief, analysis of geomorphological lineaments (positive and negative); analysis of lineament density; analysis of directional concordance; and elaboration of topographic profiles..
Status: Completed; Nature: Research.

Members: Jacson Gosman Gomes de Lima - Coordinator.

2019 - 2022

Pedostratigraphy of oxidic superficial formations in the central sector of the Araucária Plateau

Description: Integrates the research project entitled "Pedostratigraphy of oxidic superficial formations in the central sector of the Araucária Plateau" as a collaborator/Doctorate student, funded by CNPq, process 424307/2018-9, with a duration from 02/18/2019 to 02/17/2022.
Status: Completed; Nature: Research.

Members: Jacson Gosman Gomes de Lima - Member / Marga Eliz Pontelli - Coordinator.

2016 - 2016

Cultivation of vegetables in raised beds using compost derived from organic waste generated at IFSC São Miguel do Oeste Campus through the "Destino Certo" subprogram of IFSC Sustainable

Description: Over the past few years, the Federal Institute of Santa Catarina has been developing and implementing the IFSC Sustainable program, aiming to propose and systematize the practice of actions that seek to reduce the environmental impact of institutional processes and/or develop a culture of sustainability. To achieve this objective, a Sustainable Logistics Management Plan (PLS-IFSC) was prepared, which is structured into five subprograms. One of these subprograms is "Destino Certo," which is related to solid waste management and aims to manage the solid waste generated at IFSC in accordance with current legislation. The PLS-IFSC is being implemented at all

campuses that are part of the institute. Here at the São Miguel do Oeste campus, several actions encompassing the five subprograms have already been implemented. Regarding “Destino Certo,” containers have been installed according to institutional standardization for selective collection of solid waste. Recyclable materials are sold by the cleaning staff, and the money is used to improve their common room. Organic waste is directed to composting. Currently, the three composters are full, and it is necessary to create logistics to empty them and use this compost. To solve this problem, one alternative would be to develop the cultivation of some vegetables in masonry raised beds using this compost and involve students from the agribusiness and agroindustry programs in planting, tending, and harvesting activities. In this way, we would disseminate the actions developed by the institute and create greater sustainability awareness among our students. This practice would also increase the visibility of how solid waste generated on campus is managed. Another possibility is to involve students in the sieving, bagging, and labeling process of the compost produced..

Status: Completed; Nature: Research.

Members: Jacson Gosman Gomes de Lima - Coordinator.

2015 - 2015

Characterization of the construction features of deep tubular wells and evaluation of groundwater in the municipality of São Miguel do Oeste - SC

Description: This research project aims to evaluate how groundwater is being used in São Miguel do Oeste. To achieve this objective, a bibliographic review will first be conducted to understand the legislation regulating the drilling of tubular wells, as well as their installation and maintenance. Subsequently, the wells drilled in São Miguel do Oeste will be cataloged, and a thematic map showing their locations will be generated. Some wells will be randomly selected for site visits and water sample collection, which will then be subjected to microbiological and physicochemical analyses..

Status: Completed; Nature: Research.

Members: Jacson Gosman Gomes de Lima - Coordinator / Dolores Wolschick - Member.

2010 - 2010

PHYSICAL CHARACTERIZATION OF THE WEATHERING MANTLE AND SOIL ON THE FLATTENED SURFACE (II), PALMAS PLATEAU - SOUTHWESTERN PARANÁ

This research aims to establish the physical characteristics of the weathering mantle and soil on the flattened surface II, Palmas Plateau - Southwestern Paraná. This information is important for understanding the genesis of this surface, as it will contribute to knowledge of the pedogeochemical processes responsible for its evolution. In this context, they will allow interpretations regarding the type and intensity of

weathering action in the sculpting of this morphology, indicating the evolutionary framework of this flattened surface. The establishment of the physical characteristics of the weathering mantle on flattened surface II in the Palmas Plateau (SW/PR) includes both field and laboratory stages. Initially, based on the identification of flattened surfaces in the basaltic plateau of the Paraná Basin for southwestern Paraná and northeastern Santa Catarina (Paisani et al., 2008), the physical characteristics of the weathering mantle and soil of flattened surface II will be obtained in the field. Along exposed road cuts, the physical characteristics of the weathered materials will be described using the methodology of Delvigne (1981). Representative samples of the materials will be collected for particle size analysis and routine chemical determinations in the laboratory. The results will allow hypotheses to be formulated regarding the genesis of the weathering mantle on flattened surface II, located in the Palmas Plateau (SW/PR), as well as provide data for studies conducted by the Research Group "Genesis and Evolution of Geomorphic Surfaces and Superficial Formations" at Unioeste, on the genesis of flattened surfaces in southwestern Paraná..

Status: Completed; Nature: Research.

Members: Jacson Gosman Gomes de Lima - Member / Marga Eliz Pontelli - Coordinator.

2009 - 2011

CHARACTERIZATION OF THE PALEOENVIRONMENTAL RECORD OF SUPERFICIAL FORMATIONS IN INTERFLUVES AND DRAINAGE HEADWATERS IN TWO REMNANTS OF FLATTENED SURFACES (SURFACES I AND VIII) IN THE SOUTHWESTERN PORTION OF PARANÁ

Description: This proposal aims to characterize the paleoenvironmental record of superficial formations in interfluvies and drainage headwaters in two remnants of flattened surfaces (surfaces I and VIII) in the southwestern portion of Paraná. The following approaches will be taken: a) pedogenetic characterization of the paleosols; b) sedimentological characterization of colluvial and channel deposits; c) geochemical evolution of the paleo-stratigraphic record; d) establishment of a chronosequence of the pedostratigraphy record; e) Quaternary paleotemperature variations. The main scientific contributions of this proposal are: i) the establishment of the evolutionary sequence of the regional geomorphological landscape; ii) the assessment of how variations in paleoclimatic factors were relevant to the development of tropical relief forms; iii) the conditions for the formation of organic paleosols under CFA and CFB climate regimes; iv) the paleohydrological dynamics of the drainage headwaters in the southwestern Paraná region within the paleoclimatic context of southern Brazil; 2) The implementation of this proposal will strengthen: i) the Research Group "Genesis and Evolution of Geomorphic Surfaces and Superficial Formations"; ii) the stricto sensu graduate programs in Geography at UNIOESTE and UNICENTRO; iii) the training of researchers at the undergraduate and master's levels; iv) interaction between state and federal higher education institutions, strengthening an interstate research

network; v) the inclusion of the southwestern Paraná region in the national scenario of paleoenvironmental research (geosciences).
Status: Completed; Nature: Research.
Students involved: Undergraduate: (2) / Master's: (2).

Members: Jacson Gosman Gomes de Lima - Member / Julio Cesar Paisani - Coordinator / Marga Eliz Pontelli - Member / Marcelo Accioly Teixeira de Oliveira - Member / Maurício Camargo Filho - Member / Edson Bertoudo - Member / Simione Guerra - Member / Leandro Oliveira - Member.

2009 - 2011

CHARACTERIZATION OF THE DEGREE OF PEDOGENETIC EVOLUTION AND WEATHERING OF LATERITES IN RELIEF FORMS (CONCAVITIES AND SLOPES) INSCRIBED IN REMNANTS OF FLATTENED SURFACES (V, VI, VII) AND IN VALLEY SHOULDER AREAS - UPPER COURSE OF THE MARRECAS RIVER (SW PARANÁ)

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: January 26, 2026.



Jacson Gosman Gomes de Lima

Endereço para acessar este CV: <http://lattes.cnpq.br/7823730450433630>

ID Lattes: **7823730450433630**

Última atualização do currículo em 02/06/2025

Graduado em Geografia Licenciatura Plena (2010), Mestrado (2013) e Doutorado (2020) em Geografia - linha de pesquisa Dinâmica, Utilização e Preservação do Meio Ambiente pela Universidade Estadual do Oeste do Paraná - UNIOESTE. Membro do grupo de pesquisa Gênese e evolução de superfícies Geomórficas e Formações Superficiais da Universidade Estadual do Oeste do Paraná. Líder do grupo de pesquisa PESQUISA, EDUCAÇÃO E INTERDISCIPLINARIDADE. Possui conhecimentos na área de geociências, principalmente sobre: geologia, geomorfologia, pedologia, e mapeamento. Atualmente é professor efetivo (DE) do Instituto Federal de Santa Catarina - IFSC - Campus São Lourenço do Oeste, onde atua como docente em cursos FIC, Integrados, Superiores e na Pós-graduação. Na instituição tem se dedicado, especialmente, as temáticas vinculadas aos direitos humanos e étnico-raciais. **(Texto informado pelo autor)**

Identificação

Nome

Jacson Gosman Gomes de Lima 

Nome em citações bibliográficas

LIMA, J. G. G.; GOMES DE LIMA, JACSON
GOSMAN; LIMA, JACSON GOSMAN GOMES
DE; LIMA, JACSON GOSMAN

Lattes iD

 <http://lattes.cnpq.br/7823730450433630>

País de Nacionalidade

Brasil

Endereço

Endereço Profissional

Instituto Federal de Santa Catarina, Campus
São Miguel do Oeste.
Rua 22 de Abril, 244
São Luiz
89900000 - São Miguel do Oeste, SC - Brasil
Telefone: (49) 36310408
URL da Homepage: <http://smo.ifsc.edu.br/>

Formação acadêmica/titulação

2017 - 2020

Doutorado em Geografia.
Universidade Estadual do Oeste do Paraná,
UNIOESTE, Brasil.
Título: Influência estrutural e tectônica no

relevo do setor central do Planalto das Araucárias🌳, Ano de obtenção: 2020.
Orientador: 🧑🏫 Marga Eliz Pontelli.
Coorientador: Andrea Cristina Lima dos Santos Matos.

2011 - 2013

Mestrado em Geografia.
Universidade Estadual do Oeste do Paraná, UNIOESTE, Brasil.
Título: Ocorrência e Gênese de derrame alterado sob rocha sã no Planalto de Palmas (PR)/Água Doce (SC)🌳, Ano de Obtenção: 2013.
Orientador: 🧑🏫 Marga Eliz Pontelli.
Bolsista do(a): Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, CAPES, Brasil.

2007 - 2010

Graduação em Geografia.
Universidade Estadual do Oeste do Paraná, UNIOESTE, Brasil.

2004 - 2006

Ensino Médio (2º grau).
Colégio Estadual Mário de Andrade - Ens. Fund., Médio, Normal e Profissional, CEMA, Brasil.

2000 - 2003

Ensino Fundamental (1º grau).
Colégio Estadual Léo Flach - Ens. Fundamental e Médio, CELF, Brasil.

Formação Complementar

2023 - 2023

Experiências de Aprendizagem e Cultura Digital. (Carga horária: 30h).
FACULDADE UNINA, UNINA, Brasil.

2020 - 2021

Administração Escolar: teoria e prática. (Carga horária: 60h).
FACULDADE UNINA, UNINA, Brasil.

2020 - 2020

A BNCC nos Anos Finais do Ensino Fundamental: Geografia. (Carga horária: 40h).
AVAMEC - PLATAFORMA EDUCACIONAL DO MEC, AVAMEC, Brasil.

2018 - 2018

ANTÁRTICA: CURIOSIDADES E RELATOS DE PESQUISADORES POLARES. (Carga horária: 4h).
Universidade Estadual do Oeste do Paraná, UNIOESTE, Brasil.

2017 - 2017

Impacto da Mudança do Clima para Gestão Municipal. (Carga horária: 20h).
Escola Nacional de Administração Pública, ENAP, Brasil.

2017 - 2017

Bacia do Iguaçu - Características Físicas determinantes para economia.... (Carga horária: 4h).
Universidade Estadual do Oeste do Paraná, UNIOESTE, Brasil.

2017 - 2017

Introdução a Mineralogia e utilização de difratograma de raio X.... (Carga horária: 4h).
Universidade Estadual do Oeste do Paraná, UNIOESTE, Brasil.

2017 - 2017

Bases teóricas e metodológicas para mapeamento geomorfológico.... (Carga horária: 4h).
Universidade Estadual do Oeste do Paraná, UNIOESTE, Brasil.

2016 - 2016

Controle Social. (Carga horária: 20h).
Escola Nacional de Administração Pública, ENAP, Brasil.

2016 - 2016

Formação continuada de docentes ingressantes da Rede Federal de Educação. (Carga horária: 80h).
Instituto Federal de Santa Catarina, IFSC, Brasil.

2015 - 2015

Ética e Serviço Público. (Carga horária: 20h).
Escola Nacional de Administração Pública, ENAP, Brasil.

2015 - 2015

Atendimento ao Cidadão. (Carga horária: 20h).
Escola Nacional de Administração Pública, ENAP, Brasil.

2015 - 2015

Água na medida certa. (Carga horária: 20h).
Agência Nacional de Águas, ANA, Brasil.

2015 - 2015

Água e Floresta: Uso Sustentável na Caatinga. (Carga horária: 10h).
Agência Nacional de Águas, ANA, Brasil.

2015 - 2015

Cuidando das Águas. (Carga horária: 40h).
Agência Nacional de Águas, ANA, Brasil.

2015 - 2015

Planejamento, Manejo e Gestão de Bacias.
(Carga horária: 40h).
Agência Nacional de Águas, ANA, Brasil.

2015 - 2015

Monitoramento da qualidade d'água de rios e reserv. (Carga horária: 40h).
Agência Nacional de Águas, ANA, Brasil.

2015 - 2015

Educação a Distância: princípios e orientações.
(Carga horária: 60h).
Instituto Federal de Santa Catarina, IFSC, Brasil.

2014 - 2014

Análise do relevo por meio de dados de radar.
(Carga horária: 4h).
Universidade Estadual do Oeste do Paraná, UNIOESTE, Brasil.

2009 - 2009

A importância da pedologia e geomorfologia no planejamento urb. e agrícola. (Carga horária: 4h).
Universidade Estadual do Oeste do Paraná, UNIOESTE, Brasil.

2008 - 2008

O uso dos recursos tecnológicos no Ensino de Geografia. (Carga horária: 8h).
Universidade Estadual do Oeste do Paraná, UNIOESTE, Brasil.

2008 - 2008

Curso de formação pessoal e profissional.
(Carga horária: 27h).
CIEE/PR, CIEE/PR, Brasil.

Atuação Profissional

Universidade Estadual do Oeste do Paraná, UNIOESTE, Brasil.

Vínculo institucional

2013 - 2014

Vínculo: , Enquadramento Funcional: Professor colaborador, Carga horária: 24

Outras informações

Disciplinas ministradas em 2013: - Matemática aplicada as geotecnologias; - Cartografia de base; - Geologia; - Cartografia temática e digital; Disciplinas ministradas em 2014: - Geologia Geral; - Geomorfologia;

Atividades

2/2014 - 11/2014

Conselhos, Comissões e Consultoria,
Universidade Estadual do Oeste do Paraná.

Cargo ou função
Membro Docente do colegiado de Curso de
Geografia, modalidade Licenciatura Plena.

7/2013 - 12/2013

Conselhos, Comissões e Consultoria,
Universidade Estadual do Oeste do Paraná.

Cargo ou função
Membro Docente do Colegiado do Curso de
Geografia Modalidade Bacharelado.

Colégio Águia - Francisco Beltrão, CAFB, Brasil.

Vínculo institucional

2014 - 2014

Vínculo: Professor Visitante, Enquadramento
Funcional: Professor Ensino Fundamental,
Carga horária: 4

Outras informações

Ministrando aulas de Geografia para 6º ano do
Ensino Fundamental.

Secretaria da Educação do Estado do Paraná, SEED, Brasil.

Vínculo institucional

2014 - 2014

Vínculo: Celetista, Enquadramento Funcional:
Professor Ensino Fundamental e Médio, Carga
horária: 36

Outras informações

Ministrando aulas de Geografia para turmas do
ensino fundamental e médio em diversas
escolas.

Instituto Federal de Santa Catarina, IFSC, Brasil.

Vínculo institucional

2014 - Atual

Vínculo: Servidor Público, Enquadramento
Funcional: Prof. do Ensino Básico, Técnico e
Tecnológico, Carga horária: 40, Regime:
Dedicação exclusiva

Outras informações

Ingressou na instituição em 11/2014, no câmpus de Gaspar, logo na sequência transferiu-se para o câmpus de São Miguel do oeste (01/2015).Ministrou as unidades curriculares (UCs) de Geografia e Tratamento de Resíduos em (2015);Ministrou as UCs de Geografia e Geografia Agrária em (2016);Ministrou Geografia até 07/2017;Afastou-se para qualificação de 07/2017 a 07/2020;Em 2024 transferiu-se do câmpus de São Miguel do Oeste para o câmpus de São Lourenço do oeste via remoção.

Atividades

4/2023 - Atual

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Membro do Núcleo de Estudos Afro-Brasileiros e Indígenas - NEABI, do IFSC Câmpus São Miguel do Oeste.

06/2022 - Atual

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Grupo de trabalho para elaboração de minuta de projeto piloto de teletrabalho no câmpus São Miguel do Oeste.

04/2022 - Atual

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Comissão Local do IFSC Sustentável - Campus São Miguel do Oeste.

08/2021 - Atual

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Comissão de Heteroidentificação referente ao procedimento de aferição da condição declarada por candidatos inscritos para as vagas reservadas para negros (pretos e pardos) nos editais do IFSC, câmpus São Miguel do Oeste.

06/2021 - Atual

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Membro.

3/2021 - 04/2022

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Coordenador da Comissão Local do pacto universitário pela promoção do respeito à diversidade, da cultura de paz e dos direitos humanos da.

06/2021 - 9/2021

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Membro.

10/2020 - 04/2021

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Constituir Grupo de Trabalho responsável pela implantação e regulamentação do Núcleo de Estudos Afro-Brasileiros e Indígenas - NEABI no câmpus São Miguel do Oeste..

05/2017 - 06/2017

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Comissão de processo seletivo simplificado de contratação de professores substituto (portaria interna nº 142/2017) - Membro Banca Examinadora.

6/2016 - 6/2017

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Membro da Comissão de Ingresso no Câmpus de São Miguel do Oeste - Vestibular.

9/2015 - 10/2015

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Membro Comissão organizadora da Semana Nacional de Ciência e Tecnologia no câmpus.

2/2015 - 3/2015

Conselhos, Comissões e Consultoria, Instituto Federal de Santa Catarina - Câmpus São Miguel do Oeste.

Cargo ou função
Membro da Comissão Eleitoral que organizou o processo de escolha do Coordenador Adjunto PRONATEC do Câmpus. E representante suplente técnico administrativo do Colegiado do Câmpus..

Projetos de pesquisa

2023 - Atual

O perfil socioeconômico dos alunos dos cursos técnicos integrados do Instituto Federal de Santa Catarina Câmpus São Miguel do Oeste (IFSC-SMO) a partir da perspectiva geográfica

Descrição: Os institutos federais foram criados para atender demandas formativas e laborais em confluência com a inclusão socioeconômica, educacional e cidadã. Nesse sentido, a presente proposta de pesquisa objetiva apreender em que medida a instituição está concretizando sua função formativa e inclusiva, contemplando grupos sociais historicamente segregados na sociedade brasileira. Sendo assim, essa investigação será desenvolvida com o intuito de avaliar quantitativa e qualitativamente - por meio da aplicação de questionários eletrônicos - o perfil socioeconômico-cultural dos alunos dos cursos técnicos integrados do IFSC - Câmpus São Miguel do Oeste, tendo em vista o estabelecimento de um perfil geral desses estudantes, bem como compreender os processos de acesso, permanência e êxito estudantil..
Situação: Em andamento; Natureza: Pesquisa.

Integrantes: Jacson Gosman Gomes de Lima - Coordenador / Alessandro Eleutério de Oliveira - Integrante.

2021 - 2022

Caracterização Geomorfológica do relevo de São Miguel do Oeste - SC

Descrição: Resumo O relevo é base da sociedade, sobre ele são desenvolvidas todas as atividades humana, por isso estudá-lo é de suma importância. Apesar dessa importância muitas regiões ainda são pouco conhecidas do ponto de vista geomorfológico. O extremo oeste catarinense e o município de São Miguel do Oeste se enquadram nesse contexto. Desse modo, essa pesquisa visa trazer contribuições para o entendimento do arcabouço geomorfológico regional, ajudando a preencher lacuna ainda existente no conjunto de conhecimentos sobre o relevo. Para o desenvolvimento dessa pesquisa serão aplicadas metodologias pautadas principalmente no uso de geotecnologias. Nas diferentes etapas serão efetuadas: caracterização geral do relevo, análise de lineamentos geomorfológicos (positivos e negativos); análise de densidade de lineamentos; análise de concordância direcional e elaborados perfis topográficos.. Situação: Concluído; Natureza: Pesquisa.

Integrantes: Jacson Gosman Gomes de Lima - Coordenador.

2019 - 2022

Pedoestratigrafia de formações superficiais oxídicas no setor central do Planalto das Araucárias

Descrição: Integra o projeto de pesquisa intitulado "Pedoestratigrafia de formações superficiais oxídicas no setor central do Planalto das Araucárias", na condição de colaborador/aluno de Doutorado, financiado pelo CNPq ? Processo 424307/2018-9, com duração de 18/02/2019 a 17/02/2022.. Situação: Concluído; Natureza: Pesquisa.

Integrantes: Jacson Gosman Gomes de Lima - Integrante / Marga Eliz Pontelli - Coordenador.

2016 - 2016

Cultivo de hortaliças em canteiros utilizando composto oriundo dos resíduos orgânicos gerados no IFSC ? Campus São Miguel do Oeste por meio do subprograma Destino certo do IFSC sustentável

Descrição: Ao longo dos últimos anos, o Instituto Federal de Santa Catarina vem elaborando e implantando o Programa IFSC Sustentável, com o objetivo de propor e sistematizar a prática de ações que visem à redução do impacto ambiental dos processos institucionais e/ou o desenvolvimento de uma cultura para a sustentabilidade. Para atingir esse objetivo foi elaborado um Plano de Gestão de Logística Sustentável ? PLS-IFSC o qual está estruturado em cinco subprogramas. Um destes subprogramas é o Destino Certo, ou seja, está relacionado com a gestão dos resíduos sólidos e tem como objetivo efetuar o gerenciamento dos resíduos sólidos gerados no IFSC conforme legislação vigente. O PLS-IFSC está sendo imple

que fazem parte do instituto. Aqui no Câmpus de São Miguel do Oeste já foram implementadas várias ações que compõem os cinco subprogramas. Em relação ao Destino Certo foi realizada a instalação de recipientes conforme padronização institucional para coleta seletiva dos resíduos sólidos. Os materiais recicláveis são vendidos pelas funcionárias da limpeza e o dinheiro é utilizado para melhorar a sala de convivência delas. O resíduo orgânico é direcionado pra compostagem. Atualmente as três composteiras estão cheias e é necessário criar uma logística para esvaziá-las e utilizar esse composto. Para resolver esse problema uma alternativa seria desenvolver o cultivo de algumas hortaliças em canteiros feitos de alvenaria utilizando esse composto e envolver estudantes da área de agropecuária e agroindústria para as atividades de plantio, limpeza e colheita e, assim, difundirmos as ações desenvolvidas pelo instituto e criar uma consciência mais sustentável em nossos alunos. Essa prática também aumentaria a visibilidade do que é feito com os resíduos sólidos gerados aqui no Câmpus. Outra possibilidade é envolver os alunos no processo de peneiramento, ensacamento e rotulagem do composto produzido..

Situação: Concluído; Natureza: Pesquisa.

Integrantes: Jacson Gosman Gomes de Lima - Coordenador.

2015 - 2015

Caracterização das condições construtivas dos poços tubulares profundos e avaliação da água subterrânea no município de São Miguel do Oeste - SC

Descrição: Esse projeto de pesquisa tem como objetivo avaliar como está sendo usada a água subterrânea em São Miguel do Oeste. Para atingir tal objetivo primeiramente será desenvolvida revisão bibliográfica para conhecer a legislação que regulamenta a abertura de poços tubulares, bem como sua instalação e manutenção. Posteriormente serão catalogados os poços abertos em São Miguel do Oeste e gerado mapa temático com a localização dos mesmos, serão selecionados de forma aleatória alguns poços para visita e coletas de amostras de água que serão submetidas a análises microbiológicas e físico-químicas..

Situação: Concluído; Natureza: Pesquisa.

Integrantes: Jacson Gosman Gomes de Lima - Coordenador / Dolores Wolschick - Integrante.

2010 - 2010

CARACTERIZAÇÃO FÍSICA DO MANTO DE ALTERAÇÃO E SOLO NA SUPERFÍCIE APLAINADA (II), PLANALTO DE PALMAS - SUDOESTE DO PARANÁ

Descrição: A presente pesquisa busca estabelecer as características físicas do manto de alteração e solo na superfície aplainada II, Planalto Palmas - Sudoeste do Paraná. Essas informações são importantes para a compreensão da gênese da referida superfície, pois contribuirão para o conhecimento dos processos pedogeoquímicos responsáveis pela sua evolução. Nesse sentido, possibilitarão interpretações sobre o tipo e a intensidade da

ação intempérica na esculturação dessa morfologia, apontando o quadro evolutivo dessa superfície aplainada. O estabelecimento das características físicas do manto de alteração na superfície aplainada II no Planalto de Palmas (SW/PR), inclui etapas de campo e de laboratório. Num primeiro momento, com base na identificação de superfícies aplainadas no Planalto Basáltico da Bacia do Paraná, para o Sudoeste do Paraná e Noroeste de Santa Catarina (Paisani et al, 2008), serão obtidas em campo as características físicas do manto de alteração e do solo da superfície aplainada II. Ao longo de cortes expostos de estrada serão descritas as características físicas dos materiais, segundo parâmetros pedológicos, bem como definição prévia dos volumes de materiais da alterita, a partir de metodologia de Delvigne (1981). Amostras representativas dos materiais serão coletadas para determinações da granulometria e da química de rotina, em laboratório. Os resultados permitirão formular hipóteses sobre a gênese do manto de alteração na superfície aplainada II, situada no Planalto de Palmas (SW do PR), bem como fornecer elementos para os estudos desenvolvidos no Grupo de Pesquisa "Gênese e Evolução de Superfícies Geomórficas e Formações Superficiais" da Unioeste, sobre a gênese de superfícies aplainadas do Sudoeste do Paraná..

Situação: Concluído; Natureza: Pesquisa.

Integrantes: Jacson Gosman Gomes de Lima - Integrante / Marga Eliz Pontelli - Coordenador.

2009 - 2011

CARACTERIZAÇÃO DO REGISTRO PALEOAMBIENTAL DE FORMAÇÕES SUPERFICIAIS EM INTERFLÚVIO E CABECEIRA DE DRENAGEM EM DOIS REMANESCENTES DE SUPERFÍCIES APLAINADAS (SUPERFÍCIES I e VIII) NA PORÇÃO SUDOESTE DO PARANÁ

Descrição: A presente proposta visa caracterizar o registro paleoambiental de formações superficiais em interflúvio e cabeceira de drenagem em dois remanescentes de superfície aplainada (Superfície I e VIII) na porção Sudoeste do Paraná. Serão dados os seguintes encaminhamentos: a) caracterização pedogenética dos solos; b) caracterização sedimentológica dos depósitos de colúvio e de canal; c) evolução geoquímica do registro paleo-estratigráfico; d) estabelecimento de cronossequência do registro pedo-estratigráfico; e) variações da paleotemperatura durante o Quaternário. As principais contribuições científicas da presente proposta são: i) o estabelecimento da sequência evolutiva da paisagem geomorfológica regional; ii) a verificação se fatores paleoclimáticos foram relevantes no estabelecimento das formas de relevo subtropicais; iii) as condições de formação de paleossolos porgânicos em regime climático cfa e cfb; iv) a dinâmica paleohidrológica das cabeceiras de drenagem da região sudoeste do Paraná; v) inserção da região Sudoeste do Paraná no quadro paleoclimático do sul do Brasil; 2) a realização da presente proposta trará fortalecimento: i) do grupo de pesquisa "Gênese e evolução de superfícies geomórficas e formações superficiais"; ii) dos Programas de Pós- Graduação Stricto Sensu em Geografia da UNIOESTE e da UNICENTRO; iii) da formação de pesquisadores na categoria de IC e Mestre; iv) interação entre IES Estaduais e Federais fortalecendo a rede de pesquisa

interestadual; v) inserção da região sudoeste do Paraná no cenário Nacional das pesquisas na área paleoambiental (Geociências)..

Situação: Concluído; Natureza: Pesquisa.

Alunos envolvidos: Graduação: (2) / Mestrado acadêmico: (2) .

Integrantes: Jacson Gosman Gomes de Lima - Integrante / Julio Cesar Paisani - Coordenador / Marga Eliz Pontelli - Integrante / Marcelo Accioly Teixeira de Oliveira - Integrante / Mauricio Camargo Filho - Integrante / Edson Bertoudo - Integrante / Simione Guerra - Integrante / Leandro Oliveira - Integrante.

2009 - 2011

CARACTERIZAÇÃO DO GRAU DE EVOLUÇÃO PEDOGENÉTICA E DE ALTERAÇÃO DE LATERITOS EM FORMAS DE RELEVO (CONCAVIDADES E ENCOSTAS) INSCRITAS EM REMANESCENTE DE SUPERF. APLAINADA (V, VI, VII) E EM OMBREIRAS DE FUNDO DE VALE - AUTO CURSO DO RIO MARRECAS (SW do PR)

August 22, 2025

Caçapava do Sul, Rio Grande do Sul, Brazil

To the United States Citizenship and Immigration Services,

Dear Sir or Madam,

My name is Dr. Maximilian Fries, and I am a Professor and Researcher at the Federal University of Pampa (UNIPAMPA). I hold a Ph.D. in Geosciences, and throughout my career I have specialized in applied geophysics and geoprocessing with emphasis on mineral exploration. My work combines teaching with research, allowing me to contribute to scientific advancement and to the academic training of future professionals in our field.

Our paths converged in the university environment, where Mr. Rafael Lima Dessart and I collaborated in teaching undergraduate courses and in research initiatives. These opportunities gave me a close view of his professionalism and intellectual discipline, as well as his commitment to improving the quality of classroom instruction and collaborative investigations.

One of the most remarkable aspects of his contribution was the way he consistently translated theoretical knowledge into practical applications. In his teaching, Mr. Dessart stimulated curiosity and critical reasoning among students, encouraging them to approach complex problems with rigor and creativity. In our shared research activities, his participation strengthened the technical quality of the projects and fostered a spirit of cooperation that benefited colleagues and students alike.

The ripple effects of these efforts were clear, his engagement elevated the standards of our academic programs, enhanced the preparation of students entering the workforce, and reinforced the collaborative culture within our institution. By enriching the learning environment and supporting the development of colleagues, Mr. Dessart's role went far beyond individual tasks, generating positive outcomes for the university community as a whole.

What sets Mr. Dessart apart, in my professional judgment, is his technical expertise and his ability to integrate seamlessly into academic teams, contributing constructively and collegially. His combination of knowledge, reliability, and dedication

would make him a valuable addition to the United States, a nation seeking excellence in teaching and research.

In light of his accomplishments and the consistent quality of his contributions, I am pleased to offer my strong recommendation in support of Mr. Dessart's petition for the EB-2 National Interest Waiver. I am confident that his proven record in both education and research will allow him to make meaningful contributions in the United States.

Should you require any additional information, I remain at your disposal at maximilianfries@unipampa.edu.br or by phone at +55 (55) 99155-4207.

Sincerely,



Dr. Maximilian Fries

Professor and Researcher

Federal University of Pampa (UNIPAMPA)

Caçapava do Sul, RS, Brazil

Contact

www.linkedin.com/in/maximilian-fries-a183906a/ (LinkedIn)

Key Competencies

Teaching
Geophysics
Potential field data processing

Languages

English (Full Professional)
German (Full Professional)
Spanish (Professional Working)
French

Maximilian Fries

Geologist, Full Professor at Federal University of Pampa - Brazil
Caçapava do Sul, Rio Grande do Sul, Brazil

Summary

Geologist and doctor in geosciences (2008), currently a full professor at the Federal University of Pampa, teaching the following subjects: Magnetometry, Gravimetry (Geophysics BSc course), Exploration Geophysics, and GIS/Digital Image Processing (Geology BSc course). In the Postgraduate Program in Geology at Federal University of Paraná, he teaches the subject of Gravimetry and Magnetometric Data Modeling.

Presently, he is working on various research projects, partnerships, and activities focused on mineral exploration, environment, and geotechnics.

Work Experience

Federal University of Paraná
Professor and researcher Postgraduate program - Exploration geology
August 2017 - Present (8 years, 6 months)
Curitiba, Paraná

Full professor in the Graduate Program in Geology, teaching the course "Modeling of gravimetric and magnetometric data in applied studies for graduate students". Works on projects focused on Applied Geophysics in the areas of Mineral Exploration, Geotechnics, and Environmental Studies.

Federal University of Pampa
18 years 4 months
Associate Professor
August 2016 - Present (9 years, 6 months)
Caçapava do Sul, Rio Grande do Sul

Coordinates the Applied Geophysics Laboratory (LGA) in studies in the areas of mineral exploration, environmental studies, and geotectonics. Has experience in the field of Geosciences, with an emphasis on Geophysics, working on the following topics: magnetometry, gravimetry, geotectonics, and geoprocessing.

Assistant Professor

June 2008 - August 2016 (8 years, 3 months)

Conceived and established the Applied Geophysics Laboratory (LGA) in studies in the areas of mineral exploration, environmental studies, and geotectonics. Has experience in the field of Geosciences, with an emphasis on Geophysics, working on the following topics: magnetometry, gravimetry, geotectonics, and geoprocessing.

Substitute Professor

October 2007 - June 2008 (9 months)

Caçapava do Sul Campus

Academic background

UNESP - Paulista State University "Júlio de Mesquita Filho"

Master and Doctor degree - Geosciences -

Geophysics, Geophysics · (2000 - 2007)

UNESP - Paulista State University "Júlio de Mesquita Filho"

Bachelor degree - geology, Geology · (1996 - 2000)

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: January 26, 2026.

Contato

www.linkedin.com/in/maximilian-fries-a183906a (LinkedIn)

Principais competências

Teaching
Geophysics
Potential field data processing

Languages

Inglês (Full Professional)
Alemão (Full Professional)
Espanhol (Professional Working)
Francês

Maximilian Fries

Geologist, Full Professor at Universidade Federal do Pampa - Brazil
Caçapava do Sul, Rio Grande do Sul, Brasil

Resumo

Geologist and doctor in geosciences (2008), currently a full professor at the Federal University of Pampa, teaching the following subjects: Magnetometry, Gravimetry (Geophysics BSc course), Exploration Geophysics, and GIS/Digital Image Processing (Geology BSc course). In the Postgraduate Program in Geology at Federal University of Paraná, he teaches the subject of Gravimetry and Magnetometric Data Modeling.

Presently, he is working on various research projects, partnerships, and activities focused on mineral exploration, environment, and geotechnics.

Experiência

Universidade Federal do Paraná

Professor and researcher Postgraduate program - Exploration geology
agosto de 2017 - Present (8 anos 6 meses)

Curitiba, Paraná

Professor permanente do Programa de Pós-Graduação em Geologia e ministra a disciplina "Modelagem de dados gravimétricos e magnetométricos em estudos aplicados para alunos de pós-graduação." Atua em projetos com enfoque em Geofísica Aplicada nas áreas de Prospeção Mineral, Geotécnica e Meio Ambiente.

Universidade Federal do Pampa

18 anos 4 meses

Professor Associado

agosto de 2016 - Present (9 anos 6 meses)

Caçapava do Sul, Rio Grande do Sul

Coordena o Laboratório de Geofísica Aplicada/LGA em estudos nas áreas de exploração mineral, meio ambiente e geotectônica. Tem experiência na área de Geociências, com ênfase em Geofísica, atuando nos seguintes temas: magnetometria, gravimetria, geotectônica e geoprocessamento.

Professor Adjunto

junho de 2008 - agosto de 2016 (8 anos 3 meses)

Idealizou e implantou o Laboratório de Geofísica Aplicada/LGA em estudos nas áreas de exploração mineral, meio ambiente e geotectônica. Tem experiência na área de Geociências, com ênfase em Geofísica, atuando nos seguintes temas: magnetometria, gravimetria, geotectônica e geoprocessamento.

Professor Substituto

outubro de 2007 - junho de 2008 (9 meses)

Campus Caçapava do Sul

Formação acadêmica

UNESP - Universidade Estadual Paulista "Júlio de Mesquita Filho"

Master and Doctor degree - Geociences -

Geophysics, Geophysics · (2000 - 2007)

Universidade Estadual Paulista Júlio de Mesquita Filho / UNESP

Bachelor degree - geology, Geology · (1996 - 2000)

July 31, 2025

Dear USCIS Officer,

I am Dr. José Waldomiro Jiménez Rojas, Director of the Caçapava do Sul Campus at the Federal University of Pampa (UNIPAMPA) and a Professor of Higher Education with over 15 years of academic experience. In addition to my academic career, I am the founder of Rojas Engenharia (established in 2005) and have an extensive background in major civil engineering projects, including bridges, highways, dams, and structural foundations. In 2023, I was honored with the Medal of the 56th Legislature of the State of Rio Grande do Sul for my contributions to the university and regional development. It is in this capacity that I express my strong support for Mr. Rafael Lima Dessart's EB-2 National Interest Waiver petition.

I have known Mr. Dessart since 2014, when we served together as faculty at UNIPAMPA in Environmental and Sanitary Engineering and Mining Engineering. Over years of classroom and field activities, I observed his ability to plan, execute, and document practical training with rigor and clarity, always attentive to safety and the didactic value of the exercises. Beyond teaching, he contributed to consulting on a technical environmental report for the campus, offering structured, technically sound inputs aligned with institutional needs.

In my direct observation, Mr. Dessart consistently integrates geology, hydrogeology, geophysics, and geoprocessing/GIS into clear learning experiences and applicable solutions. His materials for field activities and his emphasis on method, evidence, and transparent assumptions improved the quality of our program's hands-on practice.

In the classroom and during collaborative field activities, Mr. Dessart stood out for his clear communication style and ability to inspire academic rigor among his peers and students alike. Disciplinary feedback further confirmed his outstanding performance: on multiple occasions, students submitted petitions requesting that he lead specific courses, citing his unique ability to bridge theory and practice. His thorough understanding of environmental engineering principles and the systematic way he applies them continues to elevate the reputation of our campus and fosters stronger ties between the university and surrounding communities.

From an academic management perspective, what I observe is a rare alignment of rigor and teachability. Mr. Dessart explains advanced subsurface topics with clarity, structures investigations so that data collection and interpretation are purposeful, and operates within policies and regulatory expectations. Those habits elevate student learning, assist fellow faculty, and add credibility to university-community initiatives.

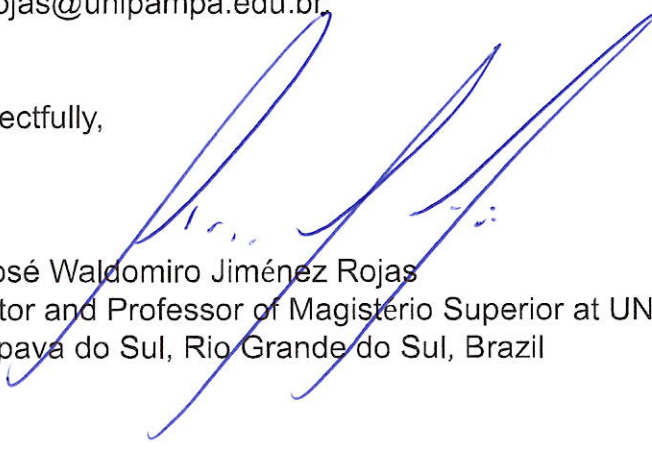
Mr. Dessart's expertise and dedication would certainly prove invaluable to the United States. His work in environmental and civil engineering aligns with

national efforts to promote sustainable infrastructure, enhance environmental stewardship, and advance scientific knowledge. His background, combining robust research with applied practice, promises substantial benefits for academic institutions, private companies, and government agencies in the U.S.

For these reasons, I recommend favorable consideration of Mr. Rafael Lima Dessart for the EB-2 National Interest Waiver. His record as a faculty member and consultant demonstrates a capacity to advance educational objectives while delivering applicable, auditable results in environmental and geological contexts.

Should you require any additional information, I remain at your disposal at joserojas@unipampa.edu.br.

Respectfully,



Dr. José Waldomiro Jiménez Rojas
Director and Professor of Magisterio Superior at UNIPAMPA
Caçapava do Sul, Rio Grande do Sul, Brazil



José Waldomiro Jiménez Rojas

Link to access this CV: <http://lattes.cnpq.br/3541292614374063>

ID Lattes: **3541292614374063**

Last updated: 11/14/2024

Holds a Bachelor's degree in Civil Engineering from the University of Passo Fundo (2005), a Master's degree in Civil Engineering (Geotechnics) from the Federal University of Rio Grande do Sul (2007), a Specialization in Environmental Licensing from Gama Filho University (2010), and a Doctoral degree in Civil Engineering (Geotechnics) from the Federal University of Rio Grande do Sul (2012). Founder of Rojas Engenharia (2005). Worked on several engineering projects, including bridges, highways, dams, retaining structures, sanitation works, shallow and deep foundations, reinforced concrete structures, among others, all duly supported by the corresponding Technical Responsibility Records and Certificates of Technical Capacity registered with CREA-RS. Served as an engineer at the Rio Grande do Sul State Department of Public Works, in the Structural and Foundation Design Section. Began teaching in 2008, with 15 years of experience in higher education, having taught several undergraduate courses at private universities. Professor of Higher Education at the Federal University of Pampa (UNIPAMPA) since 2013, teaching in the programs of Environmental and Sanitary Engineering, Geology, Geophysics, Mining, and Mining Engineering. Served as Coordinator of the Environmental and Sanitary Engineering program in 2015 and as Deputy Vice President for Planning and Infrastructure (PROPLAN) from 2016 to 2019. Received the Medal of the 56th Legislature of the Legislative Assembly of the State of Rio Grande do Sul in 2023, in recognition of work carried out at Unipampa and contributions to regional development. Currently serves as Director of the Caçapava do Sul campus and as one of those responsible for the Caçapava do Sul UNESCO Global Geopark. (Text provided by the author.)

Personal Information

Name

José Waldomiro Jiménez Rojas

Bibliographic Citation

ROJAS, José Waldomiro Jiménez; JOSÉ
WALDOMIRO JIMENEZ ROJAS; JOSE
WALDOMIRO JIMENEZ ROJAS; ROJAS,
JOSE; ROJAS, J. W. J.

Lattes iD

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Orcid iD

 <https://orcid.org/0000-0002-0721-0276>

Country of Nationality

Brasil

Address

Professional Address

Federal University of Pampa, Caçapava do Sul
Campus
Av. Pedro Anunciação
Batista

Formal Education/Degree

2007 - 2012

Doctoral Degree in Civil Engineering.
Federal University of Rio Grande do Sul, UFRGS, Brazil.
Title: Study of Strength, Hydraulic Conductivity, and Leaching of a Clay-Cemented and Contaminated Soil. Year of degree: 2012.
Advisor: Karla Salvagni Heineck.
Funding agency: Coordination for the Improvement of Higher Education Personnel, CAPES, Brazil.
Keywords: Solidification/Stabilization; Contaminated soil; Binder.
Broad area: Engineering.
Broad Area: Engineering / Area: Civil Engineering / Subarea: Geotechnical Engineering.
Broad Area: Engineering / Area: Civil Engineering / Subarea: Geotechnical Engineering / Specialty: Environmental Geotechnology.

2005 - 2007

Master's degree in Civil Engineering
Federal University of Rio Grande do Sul, UFRGS, Brazil.
Title: STUDY ON THE REMEDIATION OF SOIL CONTAMINATED BY ACIDIC OILY SLUDGE USING THE ENCAPSULATION TECHNIQUE, Year of degree: 2007.
Advisor: Nilo Cesar Consoli.
Funding agency: Coordination for the Improvement of Higher Education Personnel, CAPES, Brazil.
Keywords: Encapsulation; Acidic oily sludge; Portland cement; Soil.
Broad area: Engineering.
Broad Area: Engineering / Area: Civil Engineering / Subarea: Geotechnical Engineering.
Broad Area: Engineering / Area: Civil Engineering / Subarea: Geotechnical Engineering / Specialty: Environmental Geotechnology.

2008 - 2010

Specialization in Environmental Licensing.
(Total workload: 420 hours.)
Gama Filho University, UGF, Brazil.
Title: STUDY ON THE APPLICABILITY AND KNOWLEDGE OF CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT IN CONSTRUCTION PROJECTS IN THE MUNICIPALITY OF PASSO FUNDO, RS.
Advisor: Isis Rodrigues Carvalho.

1999 - 2004

Bachelor's degree in Civil Engineering
University of Passo Fundo, UPF, Brazil.
Title: ENVIRONMENTAL IMPACT OF ROAD CONSTRUCTION WORKS: CASE STUDY OF A LOCAL ROAD BETWEEN THE MUNICIPALITY OF ERNESTINA AND BR-386.
Advisor: Henrique da Silva Pizzo.

1998 - 1999

High School Education (Upper Secondary Education).
Sion School Cultural and Educational Association.

1997 - 1998

High School Education (Upper Secondary Education).
Liceo Ing. Manuel Benavides Rodríguez -
Heredia, Costa Rica, LIMBR, Costa Rica.

Complementary Education

2019 - 2019

AUTODESK REVIT MEP. (Workload: 24h).
GRAPHO SOFTWARE, GRAPHO SOFTWARE,
Brazil.

2019 - 2019

AUTODESK REVIT ARCHITECTURE,. (Workload: 24h).
GRAPHO SOFTWARE, GRAPHO SOFTWARE,
Brazil.

2016 - 2016

SUPERVISION OF OUTSOURCED CONTRACTS AND
SUBSIDIARY LIABILITY (Workload: 40 hours).
Federal University of Pampa, UNIPAMPA,
Brazil.

2009 - 2009

Mini-Conference of the Engineering and Arts Academic
Board (Workload: 3 hours).
Methodist University Center, IPA-RS, Brazil.

2009 - 2009

Urban Cleaning Management (Workload: 24 hours).
Centro de Produções Técnicas e Editora LTDA., CPT,
Brazil.

2009 - 2009

Court-Appointed Expert Practice (Workload: 40 hours).
Rui Juliano Expert, RJP, Brazil.

2009 - 2009

Roundtable Discussion – Higher Education in General
(Workload: 9 hours).
Methodist University Center, IPA-RS, Brazil.

2009 - 2009

Higher Education in Focus (Workload: 2 hours).
Methodist University Center, IPA-RS, Brazil.

2008 - 2008

Retaining Walls: Macstars and Gawacwin Software
Programs (Workload: 6 hours).
Brazilian Association for Soil Mechanics and
Geotechnical Engineering, ABMS, Brazil.

2008 - 2008

Water Resources Management (Workload: 60 hours).
Education Portal – Brazilian Association for Distance
Education, ABED, Brazil.

2008 - 2008

Starting a Small but Successful Business – IPGN
(Workload: 30 hours).
Brazilian Micro and Small Business Support Service,
SEBRAE, Brazil.

2008 - 2008

Technical Visit: Salto Pilão Hydroelectric Power Plant
(Workload: 10 hours).
Brazilian Association for Soil Mechanics and
Geotechnical Engineering, ABMS, Brazil.

2007 - 2008

Time Management Course (Workload: 60 hours).
Education Portal – Brazilian Association for Distance
Education, ABED, Brazil.

2007 - 2008

Natural Resources Management and Conservation
Course (Workload: 80 hours).
Education Portal – Brazilian Association for Distance
Education, ABED, Brazil.

2007 - 2008

Strategic Planning Course (Workload: 60 hours).
Education Portal – Brazilian Association for Distance
Education, ABED, Brazil.

2007 - 2007

Environmental Impact Assessment Course (Workload:
60 hours).
Education Portal – Brazilian Association for Distance
Education, ABED, Brazil.

2004 - 2004

Mini-Course H48 (Workload: 8 hours).
University of Passo Fundo, UPF, Brazil.

2004 - 2004

Use of Recycled Aggregates from Waste Materials
(Workload: 8 hours).
University of Passo Fundo, UPF, Brazil.

2004 - 2004

Environmental Education Course (Workload: 40 hours).
Brazilian Institute of Environment and Renewable
Natural Resources RS, IBAMA, Brazil.

2003 - 2003

Training on Motor Pump Sizing (Workload: 3 hours).

Schneider Industries S.A. Motor Pumps, SCHNEIDER, Brazil.

2002 - 2002

1st Lecture Series of the “Tuesday at 6” Program (Workload: 16 hours).
University of Passo Fundo, UPF, Brazil.

1999 - 1999

1st Lecture Series in Engineering and Architecture (Workload: 8 hours).
University of Passo Fundo, UPF, Brazil.

Professional Experience

Federal University of Pampa, **UNIPAMPA**, Brazil.

Contract

2023 - Current

Contract type: Public Servant. Position: Contract Supervisor – Support Foundation. Workload: 2 hours.
Employment regime: Exclusive dedication.

Additional information:

Process No. 23100.005183/2022-41.

Contract

2023 - Current

Contract type: Public Servant, Position: Project Coordinator with a Support Foundation. Employment regime: Exclusive dedication.

Additional information:

Project Coordinator with Support Foundation – Venha Viver a Unipampa (Come experience Unipampa) and the Ministry of Agrarian Development and Family Agriculture.

Contract

2022 - Current

Contract type: Public Servant, Position: Contract Supervisor – Support Foundation.
Workload: 2 hours.

Additional information:

Process No. 23100.014265/2022-86.

Contract

2021 - Current

Type of contract: Public Servant, Position: Professor of Higher Education / Administrative Leadership, Employment regime: Exclusive dedication.

Additional information:

Director of the Caçapava do Sul Campus.

Contract

2021 - Current

Type of contract: Public Servant, Position: Member of the Innovation and Entrepreneurship Committees, Workload: 2 hours, Employment regime: Exclusive dedication.

Contract

2019 - Current

Type of contract: Public Servant, Position: Contract Manager, Workload: 40 hours, Employment regime: Exclusive dedication.

Additional information:

Contract Manager for Contract No. 26/2018, pursuant to Administrative Ordinance No. 06 of January 16, 2019. Scope: Hiring of a specialized company for the partial renovation of the Information Technology Directorate – DTIC – building, for the implementation of the Information Technology Center at the Alegrete Campus.

Contract

2019 - Current

Type of contract: Public Servant, Position: Contract Manager, Workload: 40 hours.

Additional information:

Contract Manager for Contract No. 54/2014, pursuant to Administrative Ordinance No. 78 of March 9, 2016. Scope: Hiring of a specialized company for the construction of the João de Barro Student Housing at the Dom Pedrito Campus – RS.

Contract

2019 - Current

Type of contract: Public Servant, Position: Contract Manager, Workload: 40 hours.

Additional information:

Contract Manager for Contract No. 48/2012, pursuant to Ordinance No. 31 of February 19, 2019. Scope: Execution of services required for the construction of a building for the expansion of the Santana do Livramento Campus, in the city of Santana do Livramento – Rio Grande do Sul, Brazil.

Contract

2019 - Current

Type of contract: Public Servant, Position: Contract Manager, Workload: 40 hours.

Additional information:

Contract Manager for Contract No. 48/2012, pursuant to Ordinance No. 31 of February 19, 2019. Scope: Execution of services required for the construction of a building for the expansion of the Santana do Livramento Campus, in the city of Santana do Livramento – Rio Grande do Sul, Brazil.

Contract

2019 - Current

Type of contract: Public Servant, Position: Contract Manager – Alternate, Workload: 40 hours.

Additional information:

Alternate Contract Manager for Contract No. 13/2018, pursuant to Ordinance No. 09 of January 18, 2019. Scope: Hiring of a specialized company for the construction of the Human Anatomy Laboratory at the Uruguaiana Campus.

Contract

2019 - Current

Type of contract: Public Servant, Position: Contract Manager, Workload: 40 hours.

Additional information:

Contract Manager for Contract No. 01/2019, pursuant to Ordinance No. 11 of January 18, 2019. Scope: Hiring of a specialized company for the construction of the President's Office Complex, Phase I, at the Bagé Campus – RS.

Contract

2018 - Current

Type of contract: Public Servant, Position: Deputy Vice president – PROPLAN (Office of Planning)

Additional information:

Contract

2018 - Current

Type of contract: Public Servant, Position: Contract
Manager – Alternate, Workload: 40 hours.

Additional information:

Alternate Contract Manager for Contract No. 31/2017,
pursuant to Ordinance No. 06 of January 17, 2018.
Scope: Construction of the Medical Skills Laboratory at
the Uruguiana Campus, in the city of Uruguiana – RS.

Contract

2018 - Current

Type of contract: Public Servant, Position: Contract
Manager – Alternate, Workload: 40 hours.

Additional information:

Alternate Contract Manager for Contract No. 05/2018,
pursuant to Ordinance No. 60 of July 5, 2018. Scope:
Construction works at the Multiuser Research Center in
Life Sciences (NUPEVI) – Phase II, Uruguiana Campus,
in the city of Uruguiana/RS

Contract

2017 - Current

Type of contract: , Position: Permanent Committee
Member – SIEPE, Employment regime: Exclusive
dedication.

Additional information:

Full member of the Permanent Committee responsible
for organizing the International Symposium on
Teaching, Research, and Extension. ORDINANCE NO.
675, OF JUNE 12, 2017. UNIPAMPA SERVICE BULLETIN
NO. 415.

Contract

2016 - Current

Type of contract: , Position: Special Committee
Member - ORDINANCE No. 1664, Employment regime:
Exclusive dedication.

Additional information:

Coordinator of the Special Committee for the development of the Solid Waste Management Plan of the Jaguarão Campus. ORDINANCE NO. 1664, OF DECEMBER 9, 2016. UNIPAMPA SERVICE BULLETIN NO. 370.

Contract

2016 - Current

Type of contract: Public Servant, Position: Contract Manager, Workload: 40 hours.

Additional information:

Contract Manager for Contract No. 07/2015, pursuant to Ordinance No. 20 of January 7, 2016. Scope: Hiring of a specialized company for the construction of the Chemistry Laboratory – Phase II at the Caçapava do Sul Campus.

Contract

2016 - Current

Type of contract: Public Servant, Position: Contract Manager, Workload: 40 hours.

Additional information:

Contract Manager for Contract No. 06/2015, pursuant to Ordinance No. 77 of March 9, 2016. Scope: Hiring of a specialized company for the construction of Academic Building I at the Dom Pedrito Campus – RS.

Contract

2016 - Current

Type of contract: Public Servant, Position: Contract Manager, Workload: 40 hours.

Additional information:

Contract Manager for Contract No. 62/2013, pursuant to Ordinance No. 05 of January 21, 2016. Scope: Hiring of a specialized company for the construction of the João de Barro Student Housing Building at the Jaguarão Campus.

Contract

2015 - Current

Type of contract: , Position: Assistant Vice President for Planning and Infrastructure, Employment regime: Exclusive dedication

Contract

Additional information:

Administrative and financial sector and project area. During this internship phase, activities included project modifications and adaptations, budgeting services, and monitoring of construction works.

Research line

1.

Infrastructure Project Management

Objective: Addresses infrastructure project management, including the management of information systems, strategy definition, managerial cost systems, and the planning and project analysis process. It focuses on the management of urbanization and infrastructure projects, water and environmental systems, concrete and steel structures, and environmental geotechnics, applied to issues related to municipal development. The emphasis is on the infrastructure field, evaluating engineering technological solutions from environmental, economic, and social perspectives.

Broad Area: Engineering

2.

Diagnosis, Remediation, and Monitoring of Subsurface Contaminated Industrial Areas

Objective: Study of changes in microstructure, stress–strain–strength behavior, and hydraulic conductivity of contaminated soils. Study of remediation techniques for contaminated soils.

Broad Area: Engineering

Broad Area: Engineering / Area: Civil Engineering / Subarea: Geotechnics / Specialty: Environmental Geotechnics.

Sectors of Activity: Development of New Materials.

Keywords: Hydraulic conductivity; Degradation; Remediation; Microstructure; Contaminated soil.

3.

Development of New Artificially Cemented Geotechnical Materials and Their Application in Contaminant Containment and Shallow Foundation Engineering

Objective: Study of the stress–strain–strength behavior of cemented soils. Development of mix design methods for soil–cement, s

artificially cemented materials for contaminant containment; study of waste encapsulation techniques within a cemented soil matrix.

Broad Area: Engineering

Broad Area: Engineering / Area: Civil Engineering / Subarea: Geotechnics / Specialty: Environmental Geotechnics.

Sectors of Activity: Development of New Materials.

Keywords: Shear strength; Soil–cement; Laboratory testing.

Research projects

2022 - Current

Geological Modeling and Mine Planning Guided by Geophysics and Digital Aerial Photogrammetry

Description: This project proposes the integration of surface geophysical methods, drill core data, and digital aerial photogrammetry with the objective of defining the geophysical and geometric parameters of geological units hosting dolomitic marble in the Caçapava do Sul region. The geological model of the deposits will be developed using modern data processing techniques and machine learning, serving as a basis for mine planning and production sequencing, as well as for the optimization of unit operations. Chemical analysis data (PN), which will be outsourced to a specialized company, will also be correlated with data generated by X-ray fluorescence (XRF) analysis after sample preparation.

Status: Ongoing; Nature: Research.

Students involved: Undergraduate: (10) / Specialization: (2) / Academic Master's: (0) / Professional Master's: (1) .

Team members: José Waldomiro Jiménez Rojas – Coordinator / Lenon Melo Ilha – Member / Diogo Peixoto Cordova – Member / Italo Gomes Gonçalves – Member / Angela Cristina Bertoi Fleck – Member / Meise Pricila de Paiva – Member.

2022 - Current

Mapping and Stability Analysis of Slopes in the Pampa Gaúcho Region

Description: Slopes may be excavated or constructed in soil and/or rock. Whenever possible, all slopes should be built in accordance with a well-developed stability analysis design. For this analysis, geotechnical projects require field and laboratory testing, allowing the development of computational stability models with realistic estimates of the mechanical properties of the materials involved. This research on slope mapping and stability analysis will use data from traditional laboratory and field tests in soil and rock, which will be correlated with geophysical surveys, providing geotechnical maps of specific areas and enabling stability analysis using computational methods.

Thus, this research is justified by the

need to acquire knowledge and determine strength and stability parameters for the Pampa Gaúcho region, in addition to promoting interdisciplinarity and integration between geotechnical and geoenvironmental investigations supported by geophysical investigation methods. The results will provide greater knowledge to the academic and professional communities regarding geotechnical structures in the Pampa Gaúcho region.
Status: Ongoing; Nature: Research.
Students involved: Undergraduate: (2).

Team members: José Waldomiro Jiménez Rojas – Coordinator / Diogo Peixoto Cordova – Member / Italo Gomes Gonçalves – Member / João Vitor Pfeifer Machado – Member / Leonardo Santos Souza – Member.

2022 - Current

Innovation and Entrepreneurship: Caçapava do Sul Campus Engaged in Regional Strengthening and Development

Description: The Caçapava do Sul campus has developed several initiatives focused on entrepreneurship, innovation, and creativity, including the incorporation of these themes into curricular components. This project aims to further encourage the academic community at the Caçapava do Sul campus to engage with entrepreneurship, identify solutions and opportunities, and develop innovative ideas and projects. Among the planned activities, the project seeks to promote the use of innovative tools integrated with management processes. One way to engage the academic community will be through lectures, seminars, discussion groups, and by fostering entrepreneurship and innovation topics within undergraduate and graduate curricular components. Thus, through this project and the scholarship provided, the Caçapava do Sul Campus Center for Entrepreneurship and Innovation aims to attract students, in particular, to the world of entrepreneurship, ideas, and innovation.
Status: Ongoing; Nature: Research.
Students involved: Undergraduate: (5).

Team members: José Waldomiro Jiménez Rojas – Coordinator / Rhaissa Martini de Souza – Member / Maria Denise Ricalde de Souza – Member / Carolina Ferreira de Matos Jauris – Member / Carolina Sampaio Marques – Member / Renata Vivian de Miranda – Member / Italo Gomes Gonçalves – Member / Juliana Young – Member.

2016 - Current

Integrated Studies of Electromagnetic Geoconductivimeter, Electrical Resistivity, and Remote Sensing Methods Applied to Mineral Prospecting in the Southern Rio Grande do Sul Shield Region

Status: Ongoing; Nature: Research.

Team members: José Waldomiro Jiménez Rojas – Coordinator / CRISTIANE HEREDIA GOMES – Member / José Pedro Rebés Lima – Member.

2016 - Current

Identification of Prospective Indicators of Mineral Deposits in the Central-Southern Region of Rio Grande do Sul

Status: Ongoing; Nature: Research.

Team members: José Waldomiro Jiménez Rojas – Member / CRISTIANE HEREDIA GOMES – Coordinator.

2015 - 2016

GEOENVIRONMENTAL MAPPING APPLIED TO URBAN GROWTH IN THE CITY OF CAÇAPAVA DO SUL

Status: Completed; Nature: Research.

Team members: José Waldomiro Jiménez Rojas – Coordinator.

2015 - 2016

ANALYSIS OF ALKALINE EARTH METALS AND OTHER METALS IN WATER, SOIL, AND THE ATMOSPHERE OF CAÇAPAVA DO SUL

Status: Completed; Nature: Research.

Team members: José Waldomiro Jiménez Rojas – Coordinator / CRISTIANE HEREDIA GOMES – Member.

2015 - 2015

Geotechnical and Geoenvironmental Investigation Supported by Geophysical Methods

Status: Completed; Nature: Research.

Team members: José Waldomiro Jiménez Rojas – Coordinator.

2015 - Current

Integrated Geophysical Methods Applied to Groundwater Prospecting, Environmental Studies, Structural Geology, and Coastal Environment Characterization

Status: Ongoing; Nature: Research.

Team members: José Waldomiro Jiménez Rojas – Coordinator / CRISTIANE HEREDIA GOMES – Member / José Pedro Rebés Lima – Member.

2014 - 2015

Implementation of Composting for the Management of Urban Solid Waste in the Municipality of Caçapava do Sul ? RS

Status: Completed; Nature: Research.

2014 - Current

Study of the Applicability and Awareness of Construction and Demolition Waste Management at Construction Sites in the Municipality of Caçapava do Sul – RS

Description: This study aims to assess the level of awareness and the applicability of CONAMA Resolution No. 307 (2002) among construction companies operating in the municipality of Caçapava do Sul (RS). To this end, a methodological design will be established consisting of the application of questionnaires to construction companies within the municipality under study. Based on the results, it will be possible to determine whether the companies and construction sites surveyed implement Construction and Demolition Waste Management Plans (CDWMPs), as well as to verify whether the municipality generates a significant volume of waste and whether there is specific knowledge regarding its final disposal. Thus, it will be possible to conclude whether construction activities in the municipality of Caçapava do Sul comply with current legislation concerning the management of waste generated at construction sites and whether any construction and demolition waste management practices are effectively applied.

Status: Ongoing; Nature: Research.

Students involved: Undergraduate: (4).

Team members: José Waldomiro Jiménez Rojas – Coordinator / Fernanda Maria Conte Nunes – Member / Everton Barbosa Chaves – Member / TÚLIO CAMPOS DE ARAÚJO – Member / FELIPE DA SILVA KAMIMURA – Member.

2008 - 2011

Study of the Geotechnical Behavior of Paper Industry Waste

Description: Following the research line on new geotechnical materials, and seeking technical solutions through the use of alternative materials and waste reutilization, this project proposes the study of the geotechnical behavior of waste generated by a paper recycling plant located in the state of Rio Grande do Sul, Brazil. The objective of the study is to characterize the waste and identify its properties with regard to mechanical and hydraulic performance, based on a laboratory testing program that includes physical, chemical, and microscopic characterization tests, hydraulic conductivity tests, and drained and undrained triaxial tests. Given that paper industry waste is mainly composed of cellulosic fibers, mineral fillers, and water, the study also aims to investigate whether the behavior of this waste resembles that of fibrous composite materials, in which bilinearity of the strength envelope is observed, as well as high friction angle values in the first portion of the bilinear envelope. The main expected outcome of this research is a detailed description of the behavior of paper industry waste, based on the established framework for

fiber-reinforced composite materials, correlating the main parameters related to the mechanical performance of these materials and, subsequently, proposing an appropriate destination for the waste based on its properties and potential applications.

Status: Ongoing; Nature: Research.

Students involved: Academic Master's: (1) / Doctorate: (1).

Team members: José Waldomiro Jiménez Rojas – Member / Anderson Fonini – Member / Nilo Cesar Consoli – Member / Karla Salvagni Heineck – Coordinator / Fernando Schnaid – Member / Lucas Festugato – Member / Francis Targanski – Member.

Funding agency: Coordination for the Improvement of Higher Education Personnel – Scholarship.

2007 - 2009

Alternative Uses for Waste from the Paper Recycling Industry

Description: Paper recycling has increasingly been considered worldwide due to the depletion of natural resources. At the same time, it is responsible for generating large volumes of waste, which results in high costs related to proper management and handling. Also known as deinking residues or fiber-clays, paper waste consists of the reject generated during the paper manufacturing process. It is presented as sludge and, according to existing studies, is mainly composed of cellulosic fibers, mineral fillers, and water. This material has demonstrated satisfactory performance when required to meet geotechnical parameters for impermeable cover barriers in municipal solid waste landfills, particularly due to its low hydraulic conductivity values when compacted. Based on the potential for using this type of waste, this project seeks to propose a joint initiative between the University and a paper recycling company located in the city of Gravataí, near Porto Alegre, in the state of Rio Grande do Sul, Brazil. In this way, the research results may be directly applied to solving an industrial sector problem, namely the reuse of waste generated by the activity, which currently poses challenges to the industry regarding its proper final disposal. In this context, the study aims to contribute to the development of new materials to be employed in geotechnical works, which are characterized by high consumption of natural resources and therefore have significant potential to absorb the large volumes of waste generated by the industrial activity addressed herein. The overall objective of this study is to characterize and identify the properties of the waste through laboratory testing, particularly evaluating the behavior of paper industry waste with respect to fiber behavior.

Status: Ongoing; Nature: Research.

Students involved: Undergraduate: (1) / Academic Master's: (2) / Doctorate: (1).

Team members: José Waldomiro Jiménez Rojas – Member / Anderson Fonini – Member / Nilo Cesar Consoli – Member / Karla Salvagni Heineck – Coordinator / Fernando Schnaid – Member / Lucas Festugato – Member /

Extension projects

2023 - Current

Come Experience Unipampa! The campus is ON!

Description: This multi-track project aims to disseminate and transform the Caçapava do Sul campus. Dissemination refers to communication initiatives and outreach actions with society, while transformation refers to making the campus more attractive so that the external community can benefit from everything it has to offer. The scope of action is broad, encompassing communication, sports and leisure, culture, tourism, astronomy, entrepreneurship, and infrastructure, and consequently teaching, research, innovation, and extension activities. The municipality of Caçapava do Sul has become increasingly attractive in the tourism sector, notably due to olive cultivation, the UNESCO Aspiring Geopark project, the richness of its geodiversity, and UFO tourism, among other factors. Within this context, the main objective of the project is to create mechanisms for continuous and integrated actions based on three pillars: culture, education, and the environment, making use of what both the campus and the city have to offer. The key actors are the academic community itself, as well as the population of Caçapava do Sul and the surrounding region. Status: Ongoing; Nature: Extension.

Students involved: Undergraduate: (20) / Professional Master's: (2) / Doctorate: (4).

Team members: José Waldomiro Jiménez Rojas – Coordinator / Maria Denise Ricalde de Souza – Member / Ester Bitencourt Giambastiani Machado – Member / Evelton Machado Ferreira – Member / Ezequiel Galvão de Souza – Member / Marcelo Lusa – Member / Stener Camargo – Member.

2023 - Current

Public Service Desk at the Caçapava do Sul Campus: A Channel for Welcoming, Dialogue, Problem Identification, and the Proposal of Solutions for Society

Description: The curricular integration of extension activities has brought major challenges to the university, particularly regarding the large number of hours students are required to complete within their academic curricula. In parallel, there is a growing need for the university to effectively implement the extension pillar across different sectors of society, seeking to foster development through horizontal dialogue with these sectors. Although one of the basic premises of extension is for the university to go out into society to identify its needs, the opposite path is also highly valuable—namely, enabling society to come to the university to present its demands. In this sense, the creation of a direct communication channel between the university and society would significantly improve the identification of needs to be

addressed. Considering the student as the central protagonist in extension activities, students would be responsible for receiving, managing, and directing different demands to the appropriate units within the university, enabling these units to develop projects linked to this program. The justification for this program lies in the need for a structured means through which different sectors of society can establish direct contact with the university to present their problems, allowing extension action strategies to be proposed in the form of projects based on identified needs. In addition, the program responds to the growing demand for curricular extension hours completed by students and reinforces student protagonism in university extension as part of their civic education. The objective of this program is to serve as a framework for incorporating projects developed in response to requests submitted by different sectors of society to the university. The program essentially consists of a service channel managed by students. This service channel may operate physically on campus or virtually through digital resources such as websites, email, or social media. Students will receive the demands and forward them to the appropriate units for each type of issue, where other students, together with faculty members, will propose extension projects aimed at solving the identified problems. Expected outcomes include the establishment of a unified registry of societal needs managed by students within the university, who will propose extension projects to address the identified problems. Along with the projects that will subsequently be linked to the program, the inseparability of the university's core pillars will be ensured through the interaction between teaching and research activities developed by students within the university, which will be transformed into extension project proposals to serve sectors of society in need. Public evaluation will take place primarily through the delivery of the final product to society—that is, the project developed in accordance with the identified need. Internal evaluation by the project team will be continuous, occurring throughout all stages of the process, from the initial interviews and assessment of societal needs to the delivery of the final product. Status: Ongoing; Nature: Extension.

Team members: José Waldomiro Jiménez Rojas – Coordinator / Tiago Rafael Gregory – Member / Cristiane Heredia Gomes – Member.

2023 - Current

Training the Community in Geotechnical and Environmental Monitoring

Description: The proposal aims to create an effective method for training and capacity building of the Caçapava do Sul community with regard to geotechnical monitoring, with the purpose of monitoring geological risks (slope failures). The focus is on the Caçapava do Sul community living in areas of geological risk, with deficiencies in drainage systems, areas with steep slopes, among others. The proposal also considers a focus on professionals from limestone companies in the region, FIDA,

I, Raphael Michels Fantinato de Moura, telephone number [415 425-2508](tel:415-425-2508), mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: January 23, 2026.



José Waldomiro Jiménez Rojas

Endereço para acessar este CV: <http://lattes.cnpq.br/3541292614374063>

ID Lattes: **3541292614374063**

Última atualização do currículo em 14/11/2024

Possui graduação em Engenharia Civil pela Universidade de Passo Fundo (2005), Mestrado em Engenharia Civil (Geotecnia) pela Universidade Federal do Rio Grande do Sul (2007), Especialização em Licenciamento Ambiental pela Universidade Gama Filho (2010) e Doutorado em Engenharia Civil (Geotecnia) pela Universidade Federal do Rio Grande do Sul (2012). Fundador da empresa Rojas Engenharia (2005). Atuou também em diversas obras de engenharia, tais como: pontes, rodovias, barragens, estruturas de contenção, saneamento, fundações superficiais e profundas, estruturas em concreto armado, entre outros, todas com as respectivas Anotações de Responsabilidade Técnica e os Atestados de Capacidade Técnica registrados pelo CREA-RS. Atuou como engenheiro na Secretaria de Obras Públicas do Rio Grande do Sul, na Seção de Projetos Estruturais e Fundações. Iniciou como docente em 2008, com 15 anos de docência superior, lecionou em Universidades privadas em diversos cursos de graduação. Desde 2013 é Professor do Magistério Superior na Universidade Federal do Pampa - UNIPAMPA, nos cursos de Engenharia Ambiental e Sanitária, Geologia, Geofísica, Mineração e Engenharia de Minas. Foi coordenador do curso de Engenharia Ambiental e Sanitária (2015). Foi Pró Reitor Adjunto de Planejamento e Infraestrutura - PROPLAN na gestão 2016-2019. Em 2023 recebeu a Medalha da 56 Legislatura da Assembleia Legislativa do Rio Grande do Sul pelos trabalhos realizados junto à Unipampa e ao desenvolvimento regional. Atualmente está como Diretor do campus Caçapava do Sul e um dos responsáveis pelo Caçapava Geoparque Mundial da UNESCO. **(Texto informado pelo autor)**

Identificação

Nome

José Waldomiro Jiménez Rojas

Nome em citações bibliográficas

ROJAS, José	Waldomiro	Jiménez; JOSÉ
WALDOMIRO	JIMENEZ	ROJAS; JOSE
WALDOMIRO	JIMENEZ	ROJAS; ROJAS,
JOSE; ROJAS, J. W. J.		

Lattes iD

 <http://lattes.cnpq.br/3541292614374063>

Orcid iD

 <https://orcid.org/0000-0002-0721-0276>

País de Nacionalidade

Brasil

Endereço

Endereço Profissional

Universidade Federal do Pampa, Campus
Caçapava do Sul.
Av. Pedro Anunciação
Batista

Formação acadêmica/titulação

2007 - 2012

Doutorado em Engenharia Civil.
Universidade Federal do Rio Grande do Sul,
UFRGS, Brasil.
Título: Estudo da Resistência, condutividade
hidráulica e lixiviação de um solo argiloso-
cimentado e contaminado☼, Ano de obtenção:
2012.
Orientador: ☼ Karla Salvagni Heineck.
Bolsista do(a): Coordenação de
Aperfeiçoamento de Pessoal de Nível Superior,
CAPES, Brasil.
Palavras-chave: Solidificação/Estabilização;
Solo contaminado; Aglomerante.
Grande área: Engenharias
Grande Área: Engenharias / Área: Engenharia
Civil / Subárea: Geotécnica.
Grande Área: Engenharias / Área: Engenharia
Civil / Subárea: Geotécnica / Especialidade:
Geotecnologia Ambiental.

2005 - 2007

Mestrado em Engenharia Civil.
Universidade Federal do Rio Grande do Sul,
UFRGS, Brasil.
Título: ESTUDO DE REMEDIAÇÃO DE SOLO
CONTAMINADO POR BORRA, ÓLEOSA ÁCIDA
UTILIZANDO A TÉCNICA DE
ENCAPSULAMENTO☼, Ano de Obtenção:
2007.
Orientador: ☼ Nilo Cesar Consoli.
Bolsista do(a): Coordenação de
Aperfeiçoamento de Pessoal de Nível Superior,
CAPES, Brasil.
Palavras-chave: Encapsulamento; Borra Oleosa
Ácida; Cimento Portland; Solo.
Grande área: Engenharias
Grande Área: Engenharias / Área: Engenharia
Civil / Subárea: Geotécnica.
Grande Área: Engenharias / Área: Engenharia
Civil / Subárea: Geotécnica / Especialidade:
Geotecnologia Ambiental.

2008 - 2010

Especialização em Licenciamento Ambiental.
(Carga Horária: 420h).
Universidade Gama Filho, UGF, Brasil.
Título: ESTUDO DA APLICABILIDADE E DO
CONHECIMENTO DO GERENCIAMENTO DE
RESÍDUOS DA CONSTRUÇÃO E DEMOLIÇÃO
EM OBRAS DO MUNICÍPIO DE PASSO FUNDO-
RS.
Orientador: Isis Rodrigues Carvalho.

1999 - 2004

Graduação em Engenharia Civil.
Universidade de Passo Fundo, UPF, Brasil.
Título: IMPACTO AMBIENTAL EM OBRAS
RODOVIÁRIAS: ESTUDO DE ESTRADA VICINAL
ENTRE O MUNICÍPIO DE ERNESTINA E A BR
386.
Orientador: Henrique da Silva Pizzo.

1998 - 1999

Ensino Médio (2º grau).
Asociación Cultural Educativa Colegio de Sion -

1997 - 1998

Ensino Médio (2º grau).
Liceo Ing. Manuel Benavides Rodríguez -
Heredia - Costa Rica, LIMBR, Costa Rica.

Formação Complementar

2019 - 2019

AUTODESK REVIT MEP. (Carga horária: 24h).
GRAPHO SOFTWARE, GRAPHO SOFTWARE,
Brasil.

2019 - 2019

AUTODESK REVIT ARCHITECTURE,. (Carga
horária: 24h).
GRAPHO SOFTWARE, GRAPHO SOFTWARE,
Brasil.

2016 - 2016

FISCALIZAÇÃO DE CONTRATOS DE
TERCEIRIZADOS E RESPONSABILIDADES
SUBSIDIARIAS. (Carga horária: 40h).
Universidade Federal do Pampa, UNIPAMPA,
Brasil.

2009 - 2009

Miniconferência do Colegiado de Engenharia e
Artes. (Carga horária: 3h).
Centro Universitário Metodista, IPA-RS, Brasil.

2009 - 2009

Gerenciamento de Limpeza Urbana. (Carga
horária: 24h).
Centro de Produções Técnicas e Editora LTDA,
CPT, Brasil.

2009 - 2009

Perícia Judicial. (Carga horária: 40h).
Rui Juliano Pericias, RJP, Brasil.

2009 - 2009

Roda de Conversa - Educação Superior em
Geral. (Carga horária: 9h).
Centro Universitário Metodista, IPA-RS, Brasil.

2009 - 2009

Educação Superior em Cena. (Carga horária:
2h).
Centro Universitário Metodista, IPA-RS, Brasil.

2008 - 2008

Muros de Arrimo: Programas Macstars e
Gawacwin. (Carga horária: 6h).
Associação Brasileira de Mecânica dos Solos e
Engenharia Geotécnica, ABMS, Brasil.

2008 - 2008

Gestão de Recursos Hídricos. (Carga horária: 60h).
Portal Educação - Associação Brasileira de Educação a Distância, ABED, Brasil.

2008 - 2008

Iniciando um Pequeno Grande Negócio - IPGN. (Carga horária: 30h).
Serviço de Apoio às Micros e Pequenas Empresas, SEBRAE, Brasil.

2008 - 2008

Visita Técnica: Usina Hidrelétrica Salto Pilão. (Carga horária: 10h).
Associação Brasileira de Mecânica dos Solos e Engenharia Geotécnica, ABMS, Brasil.

2007 - 2008

Curso de Administração do Tempo. (Carga horária: 60h).
Portal Educação - Associação Brasileira de Educação a Distância, ABED, Brasil.

2007 - 2008

Curso de Manejo e Conservação de Recursos Naturais. (Carga horária: 80h).
Portal Educação - Associação Brasileira de Educação a Distância, ABED, Brasil.

2007 - 2008

Curso de Planejamento Estratégico. (Carga horária: 60h).
Portal Educação - Associação Brasileira de Educação a Distância, ABED, Brasil.

2007 - 2007

Curso de Avaliação de Impacto Ambiental. (Carga horária: 60h).
Portal Educação - Associação Brasileira de Educação a Distância, ABED, Brasil.

2004 - 2004

Mini curso H48. (Carga horária: 8h).
Universidade de Passo Fundo, UPF, Brasil.

2004 - 2004

Utilização de Agregados Reciclados de Resíduos. (Carga horária: 8h).
Universidade de Passo Fundo, UPF, Brasil.

2004 - 2004

Curso de Educação Ambiental. (Carga horária: 40h).
Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis RS, IBAMA, Brasil.

2003 - 2003

Treinamento sobre Dimensionamento de Motobombas. (Carga horária: 3h).

2002 - 2002

I Ciclo de Palestras do Programa Terça as 6.
(Carga horária: 16h).
Universidade de Passo Fundo, UPF, Brasil.

1999 - 1999

I Ciclos de Palestras em Engenharia e
Arquitetura. (Carga horária: 8h).
Universidade de Passo Fundo, UPF, Brasil.

Atuação Profissional

Universidade Federal do Pampa, **UNIPAMPA**, Brasil.

Vínculo institucional

2023 - Atual

Vínculo: Servidor Público, Enquadramento
Funcional: Fiscal de contrato - Fundação de
Apoio, Carga horária: 2, Regime: Dedicação
exclusiva.

Outras informações

Processo 23100.005183/2022-41

Vínculo institucional

2023 - Atual

Vínculo: Servidor Público, Enquadramento
Funcional: Coordenador de Projeto com
Fundação de Apoio, Regime: Dedicação
exclusiva.

Outras informações

Coordenador de Projeto com Fundação de
Apoio - Venha Viver a Unipama e Ministério do
Desenvolvimento Agrário e Agricultura Familiar

Vínculo institucional

2022 - Atual

Vínculo: Servidor Público, Enquadramento
Funcional: Fiscal de contrato - Fundação de
Apoio, Carga horária: 2

Outras informações

Processo n 23100.014265/2022-86

Vínculo institucional

2021 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Professor do Magistério Superior / Direção, Regime: Dedicção exclusiva.

Outras informações

Diretor do Campus Caçapava do Sul.

Vínculo institucional

2021 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Comissões de Inovação e Empreendedorismo, Carga horária: 2, Regime: Dedicção exclusiva.

Vínculo institucional

2019 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Gestor do Contrato, Carga horária: 40, Regime: Dedicção exclusiva.

Outras informações

Gestor do Contrato nº 26/2018, conforme a Portaria nº 06 de 16 de janeiro de 2019. Objeto: Contratação de Empresa especializada para a Reforma parcial do prédio da Diretoria de Tecnologia da Informação - DTIC - para a implantação do Centro de Tecnologia da Informação no Campus Alegrete.

Vínculo institucional

2019 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Gestor de Contrato, Carga horária: 40

Outras informações

Gestor do Contrato nº 54/2014, conforme a Portaria nº 78 de 09 de março de 2016. Objeto: Contratação de Empresa especializada para a construção da Casa do Estudante João de Barro do Campus de Dom Pedrito - RS.

Vínculo institucional

2019 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Gestor de Contrato, Carga horária: 40

Outras informações

Gestor do Contrato nº 48/2012, conforme a Portaria nº 31 de 19 de fevereiro de 2019. Objeto: Execução de serviços necessários para construção do prédio para expansão do campus Santana do Livramento, na cidade de Santana do Livramento - Rio Grande do Sul.

Vínculo institucional

2019 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Gestor de Contrato, Carga horária: 40

Outras informações

Gestor do Contrato nº 48/2012, conforme a Portaria nº 31 de 19 de fevereiro de 2019. Objeto: Execução de serviços necessários para construção do prédio para expansão do campus Santana do Livramento, na cidade de Santana do Livramento - Rio Grande do Sul.

Vínculo institucional

2019 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Gestor de Contrato - Substituto, Carga horária: 40

Outras informações

Gestor Substituto do Contrato nº 13/2018, conforme a Portaria nº 09 de 18 de janeiro de 2019. Objeto: Contratação de Empresa especializada para Construção do Laboratório da Anatomia Humana, no Campus Uruguaiana.

Vínculo institucional

2019 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Gestor de Contrato, Carga horária: 40

Outras informações

Gestor do Contrato nº 01/2019, conforme a Portaria nº 11 de 18 de janeiro de 2019. Objeto: Contratação de Empresa especializada para Construção da Cidade Reitoria, parte 01 no Campus Bagé - RS.

Vínculo institucional

2018 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Pró Reitor Adjunto - PROPLAN

Outras informações

Vínculo institucional

2018 - Atual

Vínculo: Servidor Público, Enquadramento
Funcional: Gestor de Contrato - Substituto,
Carga horária: 40

Outras informações

Gestor Substituto do Contrato nº 31/2017,
conforme a Portaria nº 06 de 17 de janeiro de
2018. Objeto: Construção do laboratório de
habilidades médicas no Campus Uruguiana na
cidade de Uruguiana RS.

Vínculo institucional

2018 - Atual

Vínculo: Servidor Público, Enquadramento
Funcional: Gestor de Contrato - Substituto,
Carga horária: 40

Outras informações

Gestor Substituto do Contrato nº 05/2018,
conforme a Portaria nº 60 de 05 de julho de
2018. Objeto: Obra no Núcleo Multiusuário de
Pesquisa em Ciências da Vida (NUPEVI) - 2ª
FASE, Campus Uruguiana, na cidade de
Uruguiana/RS

Vínculo institucional

2017 - Atual

Vínculo: , Enquadramento Funcional: Comissão
Permanente - SIEPE, Regime: Dedicção
exclusiva.

Outras informações

Membro Titular da Comissão Permanente da
Organização do Salão Internacional de Ensino,
Pesquisa e Extensão. PORTARIA Nº 675, DE 12
DE junho DE 2017. BOLETIM DE SERVIÇO
UNIPAMPA Nº 415.

Vínculo institucional

2016 - Atual

Vínculo: , Enquadramento Funcional: Comissão
especial - PORTARIA Nº 1664, Regime:
Dedicção exclusiva.

Outras informações

Coordenador da Comissão Especial para desenvolver o Plano de Gerenciamento de Resíduos Sólidos do Campus Jaguarão. PORTARIA Nº 1664, DE 09 DE DEZEMBRO DE 2016. BOLETIM DE SERVIÇO UNIPAMPA Nº 370.

Vínculo institucional

2016 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Gestor de Contrato, Carga horária: 40

Outras informações

Gestor do Contrato nº 07/2015, conforme a Portaria nº 20 de 07 de janeiro de 2016. Objeto: Contratação de Empresa especializada para a construção do Laboratório de Química - Fase 02 no campus Caçapava do Sul.

Vínculo institucional

2016 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Gestor de Contrato, Carga horária: 40

Outras informações

Gestor do Contrato nº 06/2015, conforme a Portaria nº 77 de 09 março de 2016. Objeto: Contratação de Empresa especializada para a construção do Prédio Acadêmico I do Campus Dom Pedrito-RS.

Vínculo institucional

2016 - Atual

Vínculo: Servidor Público, Enquadramento Funcional: Gestor de Contrato, Carga horária: 40

Outras informações

Gestor do Contrato nº 62/2013 conforme a Portaria nº 05 de 21 de janeiro de 2016. Objeto: Contratação de Empresa especializada Construção do Prédio da Casa do Estudante João de Barro no Campus Jagurão.

Vínculo institucional

2015 - Atual

Vínculo: , Enquadramento Funcional: Pro reitor Adjunto de Planejamento e Infraest, Regime: Dedicção exclusiva.

Vínculo institucional

Outras informações

Setor administrativo, financeiro e área de projeto. Nesta etapa do estágio algumas modificações e adequações em projetos, serviços orçamentários e acompanhamento de obras.

Linhas de pesquisa

1.

Gestão de Projetos de Infra-estrutura

Objetivo: Aborda a Gestão de projetos de infra-estruturas, incluindo a gestão de sistemas de informação, a definição de estratégias, os sistemas de custos gerenciais e o processo de planejamento e análise de projetos. Trata-se do processo de gestão de projetos de urbanização e Infra-estrutura, sistemas hídricos e ambientais, obras de concreto e aço e geotecnia ambiental, aplicados a problemas relativos ao desenvolvimento dos municípios. Tem o enfoque na área de infra-estrutura, avaliando sob aspectos ambientais, econômicos e sociais as soluções tecnológicas de engenharia.
Grande área: Engenharias

2.

Diagnóstico, Remediação e Monitoramento de Áreas Industriais Contaminadas em Subsuperfície

Objetivo: Estudo da mudança da microestrutura, do comportamento tensão-deformação-resistência e da condutividade hidráulica de solos contaminados. Estudo de técnicas de remediação de solos contaminados.
Grande área: Engenharias
Grande Área: Engenharias / Área: Engenharia Civil / Subárea: Geotécnica / Especialidade: Geotecnia Ambiental.
Setores de atividade: Desenvolvimento de Novos Materiais.
Palavras-chave: Condutividade Hidráulica; Degradação; Remediação; Microestrutura; Solo contaminado.

3.

Desenvolvimento de Novos Materiais Geotécnicos Artificialmente Cimentados e Sua Aplicação na Contenção de Contaminantes e na Engenharia de Fundações Superficiais

Objetivo: Estudo do comportamento tensão-deformação-resistência de solos cimentados. Desenvolvimento de métodos de dosagem de misturas solo-ci

materiais artificialmente cimentados na contenção de contaminantes; estudo da técnica de encapsulamento de resíduos dentro de uma matriz de solo cimentado.
Grande área: Engenharias
Grande Área: Engenharias / Área: Engenharia Civil / Subárea: Geotécnica / Especialidade: Geotecnia Ambiental.
Setores de atividade: Desenvolvimento de Novos Materiais.
Palavras-chave: resistência ao cisalhamento; Solo-cimento; Ensaio de laboratório.

Projetos de pesquisa

2022 - Atual

Modelagem Geológica e Planejamento de Lavra Guiados por Geofísica e Aerofotogrametria Digital

Descrição: O projeto propõe a integração de métodos geofísicos de superfície, dados de testemunhos de sondagem e aerofotogrametria digital, com o objetivo de definir os parâmetros geofísicos e geométricos das unidades geológicas portadoras de mármore dolomítico, na região de Caçapava do Sul. O modelo geológico dos depósitos será definido a partir de técnicas modernas de processamento de dados e aprendizagem de máquina, servindo de base para elaboração de planejamento e sequenciamento de lavra, bem como otimização de operações unitárias. Os dados das análises químicas (PN), que serão terceirizadas pela empresa, também serão correlacionados aos dados gerados por análise de fluorescência de raios-X (FRX), após a preparação das amostras..

Situação: Em andamento; Natureza: Pesquisa.

Alunos envolvidos: Graduação: (10) / Especialização: (2) / Mestrado acadêmico: (0) / Mestrado profissional: (1) .

Integrantes: José Waldomiro Jiménez Rojas - Coordenador / Lenon Melo Ilha - Integrante / Diogo Peixoto Cordova - Integrante / Italo Gomes Goncalves - Integrante / Ângela Cristina Bertoi Fleck - Integrante / Meise Pricila de Paiva - Integrante.

2022 - Atual

Mapeamento e análise de estabilidade de taludes na região do pampa gaúcho

Descrição: Os taludes podem ser escavados/construídos em solo e/ou rocha. Na medida do possível, todos os taludes devem ser construídos de acordo com um projeto bem elaborado de análise de estabilidade. Para esta análise os projetos geotécnicos necessitam de ensaios de campo e de laboratório, permitindo a construção de modelos computacionais de estabilidade, tendo uma estimativa realistas das propriedades mecânicas dos materiais envolvidos em sua construção. Esta pesquisa de mapeamento e de análise de estabilidade de taludes, utilizará dados de ensaios tradicionais de laboratório e campo em solo e rocha, os quais serão correlacionados com ensaios geofísicos, fornecendo mapas geotécnicos de determinadas áreas, permitindo a análise de estabilidade por métodos computacionais. Desta forma, esta pesquisa justifica-se devido a

necessidade de conhecimento, obtenção de parâmetro de resistência e de estabilidade para a região do Pampa Gaúcho, além da interdisciplinaridade e integração entre investigação geotécnica e geoambiental auxiliada por métodos de investigação geofísica. Os resultados vão proporcionar maior conhecimento para a comunidade acadêmica e profissional a respeito das estruturas geotécnicas na região do pampa gaúcho..
Situação: Em andamento; Natureza: Pesquisa.
Alunos envolvidos: Graduação: (2) .

Integrantes: José Waldomiro Jiménez Rojas -
Coordenador / Diogo Peixoto Cordova -
Integrante / Italo Gomes Goncalves -
Integrante / Joao Vitor Pfeifer Machado -
Integrante / Leonardo Santos Souza -
Integrante.

2022 - Atual

Inovação e empreendedorismo: campus Caçapava do Sul engajado no fortalecimento e desenvolvimento da região

Descrição: O campus Caçapava do Sul tem desenvolvido diversos projetos voltados ao empreendedorismo, a inovação e a criatividade, inclusive adicionando às componentes curriculares. Com este projeto pretende-se estimular, ainda mais, a comunidade acadêmica do campus Caçapava do Sul a pensar o empreendedorismo, a encontrar soluções e oportunidades e desenvolver ideias e projetos de inovação. Entre as atividades que serão desenvolvidas pretende-se estimular o uso de ferramentas inovadoras aliadas a processo de gestão. Uma forma de engajar a comunidade acadêmica será através de palestras, seminários, rodas de conversa e também estimular a temática empreendedorismo e iniciação nas componentes curriculares de graduação e pós graduação. Sendo assim, o Núcleo de Empreendedorismo e Inovação do Campus Caçapava do Sul pretende, com este projeto e com a bolsa disponibilizada, atrair, principalmente, os discentes para o mundo do empreendedorismo, das ideias e da inovação..
Situação: Em andamento; Natureza: Pesquisa.
Alunos envolvidos: Graduação: (5) .

Integrantes: José Waldomiro Jiménez Rojas -
Coordenador / Rhaissa Martini De Souza -
Integrante / Maria Denise Ricalde de Souza -
Integrante / Carolina Ferreira de Matos Jauris -
Integrante / Carolina Sampaio Marques -
Integrante / Renata Vivian de Miranda -
Integrante / Italo Gomes Goncalves -
Integrante / Juliana Young - Integrante.

2016 - Atual

Estudos Integrados dos Métodos Eletromagnético Geocondutímetro, Eletrorresistividade e Sensoriamento Remoto aplicados à Prospecção Mineral na região do Escudo Sul-Rio-Grandense

Situação: Em andamento; Natureza: Pesquisa.

Integrantes: José Waldomiro Jiménez Rojas -
Coordenador / CRISTIANE HEREDIA GOMES -
Integrante / José Pedro Rebés Lima -
Integrante.

2016 - Atual

Reconhecimento de Indicadores Prospectivos de Depósitos Minerais na região Centro-Sul do Rio Grande do Sul

Situação: Em andamento; Natureza: Pesquisa.

Integrantes: José Waldomiro Jiménez Rojas - Integrante / CRISTIANE HEREDIA GOMES - Coordenador.

2015 - 2016

MAPEAMENTO GEOAMBIENTAL APLICADO AO CRESCIMENTO URBANO DA CIDADE DE CAÇAPAVA DO SUL

Situação: Concluído; Natureza: Pesquisa.

Integrantes: José Waldomiro Jiménez Rojas - Coordenador.

2015 - 2016

ANÁLISES DE METAIS ALCALINOS TERROSOS E OUTROS METAIS NA ÁGUA, NO SOLO E NA ATMOSFERA DE CAÇAPAVA DO SUL

Situação: Concluído; Natureza: Pesquisa.

Integrantes: José Waldomiro Jiménez Rojas - Coordenador / CRISTIANE HEREDIA GOMES - Integrante.

2015 - 2015

Investigação Geotécnica e Geoambiental Auxiliada por Métodos Geofísicos

Situação: Concluído; Natureza: Pesquisa.

Integrantes: José Waldomiro Jiménez Rojas - Coordenador.

2015 - Atual

Métodos Integrados de Geofísica Aplicada em Estudos de Prospecção de Água Subterrânea, Meio Ambiente, Geologia Estrutural e Caracterização de Ambientes Costeiros

Situação: Em andamento; Natureza: Pesquisa.

Integrantes: José Waldomiro Jiménez Rojas - Coordenador / CRISTIANE HEREDIA GOMES - Integrante / José Pedro Rebés Lima - Integrante.

2014 - 2015

Implantação da compostagem para a destinação dos resíduos sólidos urbanos no município de Caçapava do Sul ? RS

Situação: Concluído; Natureza: Pesquisa.

2014 - Atual

Estudo da aplicabilidade e do conhecimento do gerenciamento de resíduos da construção e demolição em obras do município de Caçapava do Sul - RS

Descrição: Este trabalho tem como objetivo verificar o conhecimento e aplicabilidade da Resolução nº 307 do CONAMA (2002) em empresas do ramo de construção civil do município de Caçapava do Sul (RS). Para isso, será estabelecido um delineamento metodológico que consistirá em aplicar um questionário às empresas de construção civil no município em estudo. A partir dos resultados será possível verificar se as empresas e obras entrevistadas apresentam plano de gerenciamento de resíduos da construção e demolição (RCD) e também verificar se o município gera uma quantidade significativa de resíduos e se existe um conhecimento específico da destinação do mesmo. Desta forma será possível concluir se as obras do município de Caçapava do Sul apresentam-se de acordo com a legislação quanto ao gerenciamento dos resíduos gerados em suas obras e se aplicam qualquer atividade de gestão dos resíduos de construção e demolição..

Situação: Em andamento; Natureza: Pesquisa.

Alunos envolvidos: Graduação: (4) .

Integrantes: José Waldomiro Jiménez Rojas -
Coordenador / Fernanda Maria Conte Nunes -
Integrante / Everton Barbosa Chaves -
Integrante / TULIO CAMPOS DE ARAUJO -
Integrante / FELIPE DA SILVA KAMIMURA -
Integrante.

2008 - 2011

Estudo do Comportamento Geotécnico de Resíduos da Indústria do Papel

Descrição: Seguindo a linha de pesquisa de novos materiais geotécnicos, na busca por soluções técnicas a partir do uso de materiais alternativos e aproveitamento de resíduos, o presente projeto propõe o estudo do comportamento geotécnico do resíduo de uma fábrica recicladora de papel localizada no estado do Rio Grande do Sul, Brasil. O objetivo do trabalho consiste em caracterizar o resíduo e identificar suas propriedades no que se refere ao seu desempenho mecânico e hidráulico, a partir de um programa de ensaios de laboratório englobando ensaios de caracterização física, química, microscópica, ensaios de condutividade hidráulica e ensaios triaxiais drenados e não drenados. Uma vez que se sabe que o resíduo da indústria de papel é composto principalmente por fibras celulósicas, cargas minerais e água, é objetivo do trabalho investigar se o comportamento do resíduo se assemelha ao comportamento de materiais compósitos fibrosos, onde se observa bi-linearidade na envoltória de resistência, assim como valores altos de ângulo de atrito para a primeira porção da envoltória bi-linear. O principal resultado esperado da pesquisa seria a descrição do comportamento do resíduo da indústria de papel, baseando-se no arcabouço conhecido para o comportamento de

materiais compósitos reforçados com fibras, correlacionando os principais parâmetros que dizem respeito ao desempenho mecânico destes materiais e, a partir daí, propor uma destinação adequada para o mesmo, conhecendo suas propriedades e aplicações.
Situação: Em andamento; Natureza: Pesquisa.
Alunos envolvidos: Mestrado acadêmico: (1) Doutorado: (1) .

Integrantes: José Waldomiro Jiménez Rojas - Integrante / Anderson Fonini - Integrante / Nilo Cesar Consoli - Integrante / Karla Salvagni Heineck - Coordenador / Fernando Schnaid - Integrante / Lucas Festugato - Integrante / Francis Targanski - Integrante.
Financiador(es): Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Bolsa.

2007 - 2009

Alternativas de Utilização de um Resíduo da Indústria Recicladora de Papel

Descrição: A reciclagem de papel tem sido cada vez mais considerada em todo mundo devido ao esgotamento das reservas naturais. É também responsável pela geração de elevados volumes de resíduos, o que acarreta em elevadas despesas com seu correto gerenciamento e manejo. Também denominados de deinking residues ou fiber-clays, os resíduos de papel, consistem no rejeito gerado durante a fabricação do papel. Apresenta-se como um lodo e, de acordo com os estudos já existentes, é constituído principalmente por fibras celulósicas, cargas minerais e água. Oferece um desempenho satisfatório quando solicitado para atender parâmetros geotécnicos exigidos às barreiras impermeáveis de cobertura de aterros de resíduos sólidos urbanos, ou seja, apresenta baixos valores de condutividade hidráulica quando compactado. Baseando-se no provável potencial de utilização deste tipo de resíduo, o presente projeto busca propor uma ação conjunta entre a Universidade e uma Empresa Recicladora de Papel localizada na cidade de Gravataí, próxima a cidade de Porto Alegre, no estado do Rio Grande do Sul, Brasil. Desta maneira, os resultados da pesquisa poderão ser diretamente aplicados na solução de um problema do setor industrial, ou seja, o aproveitamento do resíduo gerado na atividade e que atualmente tem trazido problemas para a indústria, que encontra dificuldades na sua correta destinação final. Neste contexto, é intenção do trabalho contribuir para o desenvolvimento de novos materiais a serem empregados em obras geotécnicas, as quais se caracterizam pelo elevado consumo de recursos naturais e, portanto, apresentam potencial em absorver os grandes volumes de resíduos gerados pela atividade industrial aqui abordada. O objetivo geral deste trabalho, portanto, é caracterizar e identificar as propriedades do resíduo em estudo, a partir da realização de ensaios de laboratório, verificando o comportamento do resíduo da indústria de papel principalmente no que diz respeito ao comportamento das fibras.

Situação: Em andamento; Natureza: Pesquisa.
Alunos envolvidos: Graduação: (1) / Mestrado acadêmico: (2) / Doutorado: (1) .

Integrantes: José Waldomiro Jiménez Rojas - Integrante / Anderson Fonini - Integrante / Nilo Cesar Consoli - Integrante / Karla Salvagni Heineck - Coordenador / Fernando Schnaid - Integrante / Lucas Festugato - Integrante /

Projetos de extensão

2023 - Atual

Venha viver a **Unipampa!** O campus tá ON!

Descrição: Este projeto, com várias linhas de trabalho, visa difundir e transformar o campus Caçapava do Sul. Difundir no sentido de comunicação e ações juntos à sociedade e transformar no sentido de torná-lo atrativo para que a comunidade externa usufrua de tudo que o campus pode oferecer. Os eixos de ações são ainda maiores, pois trata-se de comunicação, esporte e lazer, cultura, turismo, astronomia, empreendedorismo, infraestrutura e por consequência o ensino, a pesquisa, a inovação e a extensão. O município de Caçapava do Sul, vem se tornando cada vez mais atrativo no ramo do turismo, podendo-se destacar o cultivo de oliveiras, o projeto Geoparque Aspirante Unesco, a riqueza da sua geodiversidade e o turismo ufológico, entre outros. Diante deste contexto, o projeto tem como objetivo principal criar mecanismos de ações contínuas e integradas alicerçadas em 3 pilares: cultura, educação e meio ambiente, utilizando o que o campus e a cidade têm a oferecer, tendo como atores sua própria comunidade acadêmica e a sociedade caçapavana e da região..

Situação: Em andamento; Natureza: Extensão.
Alunos envolvidos: Graduação: (20) / Mestrado profissional: (2) / Doutorado: (4) .

Integrantes: José Waldomiro Jiménez Rojas - Coordenador / Maria Denise Ricalde de Souza - Integrante / Ester Bitencourt Giambastiani Machado - Integrante / Evelton Machado Ferreira - Integrante / Ezequiel Galvao de Souza - Integrante / Marcelo Lusa - Integrante / Stener Camargo - Integrante.

2023 - Atual

Balcão público do Campus Caçapava do Sul: um canal de acolhimento, diálogo, identificação de problemas e proposição de soluções para a sociedade

Descrição: A Curricularização da Extensão trouxe grandes desafios para a universidade, principalmente no que tange à grande demanda de horas a serem desenvolvidas pelos discentes dentro de sua grade curricular. Paralelo a isso, salienta-se a necessidade crescente da universidade realmente efetivar o pilar extensão dentro dos diferentes setores da sociedade, buscando alavancar, através da dialogação horizontal com essa, o seu desenvolvimento. Embora seja uma das premissas básicas o sair da universidade e ir à sociedade identificar as suas necessidades, um caminho oposto também seria de grande valia, ou seja, a sociedade vir à universidade expor suas necessidades. Desta forma, a proposição de um canal de comunicação direto da universidade para a sociedade melhoraria muito a identificação das necessidades a serem

atendidas. Considerando a ideia de o discente ser o protagonista nas atividades de extensão, os mesmos iriam receber, gerenciar e dar os fluxos necessários das diferentes necessidades para os setores competentes da universidade darem andamento aos projetos que estariam vinculados ao presente programa. A justificativa do presente programa se dá pela necessidade de um meio onde os diferentes setores da sociedade possam entrar em contato direto com a universidade para a exposição de seus problemas para que estratégias de ações extensionistas possam ser propostas como projetos a partir das necessidades identificadas. Aliado a isso, cita-se a crescente demanda por horas em atividades curriculares de extensão realizadas pelos discentes, assim como o seu protagonismo na extensão universitária para a sua formação cidadã. O objetivo do presente programa é servir de base para a anexação de projetos construídos a partir da solicitação de diferentes setores da sociedade junto à universidade. O programa consiste, basicamente, num canal de atendimento gerenciado pelos discentes. Esse canal de atendimento poderá ser físico, na universidade, ou virtual, por meio de recursos computacionais, como site, e-mail, rede social etc. Os discentes irão receber as demandas e encaminhá-las para núcleos competentes para cada tipo de problema, onde demais discentes receberão a demanda e irão, junto com docentes, propor projetos de extensão para resolução dos problemas identificados. Esperase como resultados um canal unificado de cadastro de necessidades da sociedade para serem gerenciados pelos discentes dentro da universidade, os quais irão propor projetos de extensão para a solução dos problemas identificados. Junto com os projetos futuramente vinculados ao programa, a indissociabilidade entre os pilares da universidade será efetivada pela interação das atividades de ensino e pesquisa desenvolvidas pelo discente dentro da universidade, virando propostas de projetos de extensão para atender o setor da sociedade necessitado. A avaliação pelo público se dará, principalmente, na entrega do produto final para a sociedade, ou seja, do projeto produzido de acordo com a necessidade identificada dentro da mesma. A avaliação pela equipe será de fluxo contínuo, ocorrendo dentro de todas as etapas do processo, desde a entrevista e levantamento das necessidades da sociedade até a entrega do produto final para a mesma..

Situação: Em andamento; Natureza: Extensão.

Integrantes: José Waldomiro Jiménez Rojas -
Coordenador / Tiago Rafael Gregory -
Integrante / Cristiane Heredia Gomes -
Integrante.

2023 - Atual

Capacitando a comunidade para os monitoramentos geotécnicos e ambientais

Descrição: A proposta visa criar um método eficaz para treinamento e capacitação da comunidade caçapava quanto aos monitoramentos geotécnicos com finalidade de monitorar os riscos geológicos (rupturas em taludes). O foco se dá na comunidade caçapavana que vive em áreas de risco geológico, com deficiência no sistema de drenagem, áreas de encostas acentuadas, etc. Também se consideram o foco nos profissionais das empresas do calcário da região, FIDA,

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UNIVERSITY OF THE VALE DO RIO DOS SINOS - UNISINOS
CENTER FOR EXACT AND TECHNOLOGICAL SCIENCES
GRADUATE PROGRAM IN GEOLOGY – PPGeo
MASTER’S PROGRAM IN GEOLOGY

Rafael Lima Dessart

**STRATIGRAPHIC CHARACTERIZATION OF THE FILLING OF THE
INCISED VALLEY OF THE LOWER DOCE RIVER DURING THE
LATE PLEISTOCENE – HOLOCENE**

São Leopoldo
2009

Rafael Lima Dessart

**STRATIGRAPHIC CHARACTERIZATION OF THE FILLING OF THE
INCISED VALLEY OF THE LOWER DOCE RIVER DURING THE
LATE PLEISTOCENE – HOLOCENE**

Master's Thesis submitted to the University of
the Vale do Rio dos Sinos as a partial
requirement for obtaining the degree of
Master of Science in Geology

Advisor: Prof. Dr. Ubiratan Ferrucio Faccini
Co-advisor: Prof. Dr. Paulo Sérgio Gomes Paim

São Leopoldo
2009

ABSTRACT

Completion of the item is worth the Basin of the Lower Rio Doce, located in the city of Linhares - Espírito Santo, is analyzed through the integration of geological data for surface and subsurface, including the interpretation of satellite imagery, geophysical survey, borehole geophysics nine wells, a total of 1032.5 meters drilled, where he collected a total of 1037 samples and 22 dating performed by the method 14C and 21 luminescence. The interpretation was performed according to the concepts of sequence stratigraphy and variations in sea level in the Quaternary. Filling the valley item occurred in two phases, the lower portion of upper Pleistocene and Holocene. The excavation and filling Pleiscênicos, lower portion, is interpreted as the result of the penultimate regression (with your most regressive in 145,000 years AP), trenching, and penultimate transgression (120,000 years BP), filling the valley. During the transgression the sea level rose by two big swings down to its most regressive, about 120,000 years BP, when it reached about 4 meters above the present level. The final excavation of the valley began after the last transgression, when the relative sea level began to fall. While sea level fluctuations degrading passed through to reach its maximum regressive at 18,000 years BP, reaching 120 meters below the current level, generating an incision of about 100m depth on the Pleistocene sedimentation. With the end of the beginning of regression and transgression, the valley begins to fill. The relative sea level rises rapidly until about 7,000 years BP, when rising sea coast to reach the current level. There are about 5,600 years BP the sea level reached its maximum transgressive, reaching 5 meters higher than today. From this moment we have the origin of the system ilhas-barreiras/lagunas thus has initiated the formation of delta intralagunar. There are approximately 5,600 years BP the relative sea level begins to decline, through oscillations to reach the current level.

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: April, 27 2026

UNIVERSIDADE DO VALE DO RIO DOS SINOS – UNISINOS
CENTRO DE CIÊNCIAS EXATAS E TECNOLÓGICAS
PROGRAMA DE PÓS-GRADUAÇÃO EM GEOLOGIA – PPGeo
MESTRADO EM GEOLOGIA

Rafael Lima Dessart

**CARACTERIZAÇÃO ESTRATIGRÁFICA DO PREENCHIMENTO DO
VALE INCISO DO BAIXO RIO DOCE DURANTE O PLEISTOCENO
SUPERIOR-Holoceno**

São Leopoldo
2009

Rafael Lima Dessart

**CARACTERIZAÇÃO ESTRATIGRÁFICA DO PREENCHIMENTO DO VALE
INCISO DO BAIXO RIO DOCE DURANTE O PLEISTOCENO SUPERIOR-
HOLOCENO**

Dissertação de Mestrado apresentado a
Universidade do Vale do Rio dos Sinos como
requisito parcial para obtenção do título de
Mestre em Geologia

Orientador: Prof. Dr. Ubiratan Ferrucio Faccini
Co-orientador: Prof. Dr. Paulo Sérgio Gomes Paim

São Leopoldo
2009

ABSTRACT

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FEDERAL UNIVERSITY OF RIO GRANDE DO SUL
INSTITUTE OF HYDRAULIC RESEARCH
GRADUATE STUDIES PROGRAM IN WATER RESOURCES
AND ENVIRONMENTAL SANITATION



RAFAEL LIMA DESSART

**INTEGRATION OF HYDROGEOLOGICAL, GEOPHYSICAL, AND STRUCTURAL
DATA IN HYDROGEOLOGICAL INVESTIGATION IN THE CRYSTALLINE
BASEMENT IN THE CITY OF BAGÉ/RS**

PORTO ALEGRE

2022

RAFAEL LIMA DESSART

**INTEGRATION OF HYDROGEOLOGICAL, GEOPHYSICAL, AND STRUCTURAL
DATA IN HYDROGEOLOGICAL INVESTIGATION IN THE CRYSTALLINE
BASEMENT IN THE CITY OF BAGÉ/RS**

Doctoral Dissertation Defense submitted to the
Graduate Studies Program in Water Resources
and Environmental Sanitation of the Federal
University of Rio Grande do Sul, as a
requirement for obtaining the degree of Doctor
in Water Resources and Environmental
Sanitation.

Advisor: Prof. Dr. Pedro Antônio Roehe Reginato (IPH – UFRGS)

Co-advisor: Prof. Dr. Cristiane Heredia Gomes (UNIPAMPA)

PORTOALEGRE

2022

Dessart, Rafael Lima

INTEGRATION OF HYDROGEOLOGICAL, GEOPHYSICAL, AND
STRUCTURAL DATA IN HYDROGEOLOGICAL INVESTIGATION IN THE
CRYSTALLINE BASEMENT IN THE CITY OF BAGÉ/RS /

Rafael Lima Dessart. -- 2022.

132 p.

Advisor: Pedro Antônio Reginato.

Co-advisor: Cristiane Gomes.

Dissertation (Doctorate) - Federal University of Rio
Grande do Sul, Institute of Hydraulic Research, Graduate
Studies Program in Water Resources and Environmental
Sanitation, Porto Alegre, RS, Brazil, 2022.

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4. Electromagnetic. I. Reginato, Pedro Antônio, advisor.
II. Gomes, Cristiane, co-advisor. III. Degree.

RAFAEL LIMA DESSART

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in Water Resources and Environmental
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Approved: Porto Alegre, March 14, 2022.

Prof. Dr. Pedro Antônio Roehe Reginato – IPH/UFRGS
Advisor

Prof. Dr. Franciéle Schwanck Carlos – IPH/

Prof. Dr. Nelson Amoretti Lisboa – UFRGS

Prof. Dr. Éverton Frigo – UNIPAMPA

ABSTRACT

The Bagé region goes through recurrent periods of drought, thus harming public and rural supplies. The objective of this study is to evaluate the subdivision and hydrogeological behavior of the Crystalline Basin Aquifer System, in the municipality of Bagé (RS). As there is an occurrence of a fractured aquifer system in the region, the location of productive wells becomes more complex, which requires the need to understand the factors that condition the system and the flow of groundwater. Thus, an analysis of the hydrogeological data of 174 tubular wells, data of structures from SRTM images, processing of aeromagnetic data and electromagnetic paths was performed. To carry out the structural assessment of the area, morphostructural lineaments were traced on the SRTM images, at different scales (1:1,000,000; 1:500,000, 1:250,000, 1:100,000 and 1:50,000). Structures were also identified through the use of different filters, enhancement methods in the aeromagnetic data. Field collection of electromagnetic data was carried out in order to confirm and validate the data of the interpreted lineaments. The data from the tubular wells were analyzed and used for the hydrogeological characterization and the structural compartments. The results indicated the occurrence of five main structures, which have extensions between 8.62 and 30km. Based on these structures, five zones were defined (Z1, Z2, Z3, Z4 and Z5) that have different characteristics. The results obtained show that the region of the municipality of Bagé is compartmentalized, with different productivity and structural trends. It was also evident that even with a preferential structural trend towards NE, the main aquifer structures occur in the NW direction, secondarily towards NE, and with an accentuation of their productivity when associated with crossings of structures, both for NW and NE. The integrated interpretation of the aerial and terrestrial data allowed to recognize the hydrogeological and structural behavior of the Crystalline Basement Aquifer System, where the results, presented in georeferenced maps, present the main zones and trends with storage and confining structures for this region.

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Marina Viana

Date: April, 27 2026



UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL
INSTITUTO DE PESQUISAS HIDRAULICAS
PROGRAMA DE PÓS-GRADUAÇÃO EM RECURSOS HIDRICOS E
SANEAMENTO AMBIENTAL



RAFAEL LIMA DESSART

**INTEGRAÇÃO DE DADOS HIDROGEOLÓGICOS, GEOFÍSICOS E ESTRUTURAIS NA
INVESTIGAÇÃO HIDROGEOLÓGICA NO EMBASAMENTO CRISTALINO NO
MUNICÍPIO DE BAGÉ/RS**

PORTO ALEGRE

2022

RAFAEL LIMA DESSART

**INTEGRAÇÃO DE DADOS HIDROGEOLÓGICOS, GEOFÍSICOS E ESTRUTURAIS NA
INVESTIGAÇÃO HIDROGEOLÓGICA NO EMBASAMENTO CRISTALINO NO
MUNICÍPIO DE BAGÉ/RS**

Defesa de Tese de Doutorado submetida ao
Programa de Pós-graduação em Recursos
Hídricos e Saneamento Ambiental da
Universidade Federal do Rio Grande do Sul,
como requisito à obtenção do grau de
Doutor em Recursos Hídricos e Saneamento
Ambiental.

Orientador: Dr. Prof. Pedro Antônio Roehe Reginato (IPH - UFRGS)

Co-orientadora: Dra. Profa. Cristiane Heredia Gomes (UNIPAMPA)

PORTOALEGRE

2022

Dessart, Rafael Lima
 INTEGRAÇÃO DE DADOS HIDROGEOLÓGICOS, GEOFÍSICOS E
 ESTRUTURAIS NA INVESTIGAÇÃO HIDROGEOLÓGICA NO
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Coorientadora: Cristiane Gomes.

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1. Hidrogeologia. 2. Geofísica. 3.
 Aeromagnetometria. 4. Eletromagnético. I. Reginato,
 Pedro Antônio, orient. II. Gomes, Cristiane,
 coorient. III. Título.

RAFAEL LIMA DESSART

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Doutor em Recursos Hídricos e Saneamento
Ambiental.

Aprovado em: Porto Alegre, 14 de março de 2022.

Prof. Dr. Pedro Antônio Roehe Reginato – IPH/UFRGS
Orientador

Profa. Dr. Franciéle Schwanck Carlos – IPH/

Prof. Dr. Nelson Amoretti Lisboa – UFRGS

Prof. Dr. Éverton Frigo – UNIPAMPA

ABSTRACT

The Bagé region goes through recurrent periods of drought, thus harming public and rural supplies. The objective of this study is to evaluate the subdivision and hydrogeological behavior of the Crystalline Basin Aquifer System, in the municipality of Bagé (RS). As there is an occurrence of a fractured aquifer system in the region, the location of productive wells becomes more complex, which requires the need to understand the factors that condition the system and the flow of groundwater. Thus, an analysis of the hydrogeological data of 174 tubular wells, data of structures from SRTM images, processing of aeromagnetic data and electromagnetic paths was performed. To carry out the structural assessment of the area, morphostructural lineaments were traced on the SRTM images, at different scales (1:1,000,000; 1:500,000, 1:250,000, 1:100,000 and 1:50,000). Structures were also identified through the use of different filters, enhancement methods in the aeromagnetic data. Field collection of electromagnetic data was carried out in order to confirm and validate the data of the interpreted lineaments. The data from the tubular wells were analyzed and used for the hydrogeological characterization and the structural compartments. The results indicated the occurrence of five main structures, which have extensions between 8.62 and 30km. Based on these structures, five zones were defined (Z1, Z2, Z3, Z4 and Z5) that have different characteristics. The results obtained show that the region of the municipality of Bagé is compartmentalized, with different productivity and structural trends. It was also evident that even with a preferential structural trend towards NE, the main aquifer structures occur in the NW direction, secondarily towards NE, and with an accentuation of their productivity when associated with crossings of structures, both for NW and NE. The integrated interpretation of the aerial and terrestrial data allowed to recognize the hydrogeological and structural behavior of the Crystalline Basement Aquifer System, where the results, presented in georeferenced maps, present the main zones and trends with storage and confining structures for this region.



The Regional Council of Engineering and Agronomy of the State of Rio Grande do Sul – CREA-RS is an autonomous entity responsible for overseeing the practice and professional activities of engineers and agronomists, possessing legal personality under public law and constituting a federal public service, linked to the Federal Council of Engineering and Agronomy – Confea. CREA-RS, headquartered in the city of Porto Alegre and with jurisdiction throughout the State of Rio Grande do Sul, was established by Resolution No. 2, of April 23, 1934, in accordance with Federal Decree No. 23,569, of December 11, 1933, and maintained by Law No. 5,194, of December 24, 1966, to exercise an institutional role at the first and second instance levels within its jurisdiction.

It is the body responsible for overseeing, controlling, guiding, and improving the practice and professional activities of Engineering, Agronomy, Geology, Geography, and Meteorology at the higher education level within its jurisdiction. (Articles 1 and 2 of the Regulations).

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Our Mission and What We Do

Our Mission

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- Chemicals in the marketplace are reviewed for safety.

To accomplish this mission, we:

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When Congress writes an environmental law, we implement it by writing regulations. Often, we set national standards that states and Tribes enforce through their own regulations. If they fail to meet the national standards, we can help them. We also enforce our regulations, and help companies understand the requirements.

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Learn more:

- EPA research <<https://epa.gov/research>>

Sponsor partnerships

We don't protect the environment on our own. We work with businesses, non-profit organizations, and state and local governments through dozens of partnerships. A few examples include conserving water and energy, minimizing greenhouse gases, re-using solid waste, and getting a handle on pesticide risks. In return, we share information and publicly recognize our partners.

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Protecting the environment is everyone's responsibility, and starts with understanding the issues. The basics include reducing how much energy and materials you use, reusing what you can and recycling the rest. There's a lot more about that to learn!

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- Web publishing schedule <<https://epa.gov/home/web-publishing-schedule>>

What we don't do

Some problems that seem like something we would handle are actually the responsibility of other federal, Tribal, state or local agencies. It may be most appropriate for you to contact your city, county, or state environmental or health agency, or another federal agency, rather than EPA. For example:

- The Endangered Species Act is primarily managed by the U.S. Fish and Wildlife Service [✉](http://www.fws.gov/endangered/)
<<http://www.fws.gov/endangered/>>.
- The Department of Energy Office of Environmental Management [✉](https://www.energy.gov/em/office-environmental-management) <<https://www.energy.gov/em/office-environmental-management>> addresses the problem of nuclear waste.

Other Resources

- Review frequent questions for specific programs or topics <<https://epa.gov/aboutepa/frequent-questions-specific-epa-programstopics>>
- Visit EPA FAQs database <<https://usepa.servicenowservices.com/ecss>>
- Ask a question

Last updated on October 20, 2025

Who We Are | U.S. Geological Survey

 usgs.gov/about/about-us/who-we-are



Who We Are

Created by an act of Congress in 1879, the USGS provides science for a changing world, which reflects and responds to society's continuously evolving needs. As the science arm of the Department of the Interior, the USGS brings an array of earth, water, biological, and mapping data and expertise to bear in support of decision-making on environmental, resource, and public safety issues.

Our Vision



Lead the Nation in 21st-century integrated research, assessments, and prediction of natural resources and processes to meet society's needs.

Our Mission



The USGS monitors, analyzes, and predicts current and evolving Earth-system interactions and delivers actionable information at scales and timeframes relevant to decision makers.

What We Do



The USGS is a primary Federal source of science-based information on ecosystems, land use, energy and mineral resources, natural hazards, water use and availability, and updated maps and images of the Earth's features available to the public.

The U.S. Geological Survey works with many partners to provide objective and impartial science to resource managers, emergency response, and the public.

FEMA Administrator Deanne Criswell's Remarks to the Esri User Conference

Release Date: Jul 13, 2022

Let me just start by saying the nation needs you. And for those of you who are watching from around the world, your nations need you as well.

I'm Deanne Criswell. I'm the Administrator of the Federal Emergency Management Agency. What you just saw is what we call our anthem. This is our visual depiction of our strategic plan that is helping us achieve our vision of helping us become the FEMA that our nation needs and deserves.

And what I want to talk to all of you about today, is how important your role is in helping us achieve that vision of helping us help people before, during and after disasters. Before I start, I would just like to thank Jack and this entire ESRI team, the outstanding work that went into making this event possible. I don't know about all of you, but I have been inspired. I have been motivated and I have all kinds of ideas that I know when I go back my team is going to say stop sending her to these things, because there's so many things that I've learned today that are just going to help us do our jobs better.

And my goal today is to empower all of you, empower you to see yourself as part of that mission of helping us build a more prepared and more and more resilient nation. Because the truth is, we need your help now, more than we ever have.

So what does our threat landscape look like? Well, I can tell you from my experiences, just in the last year alone, my time in this position, that no one is immune. All of you, in all of your communities, are experiencing disasters, natural hazard threats like we've never seen before.

When I think about the West Coast, I think about wildfires. I think about how we no longer have a wildfire season. We have a year-long wildfire threat. Just earlier this year, New Mexico had their largest wildfire in their history. In December of last year, we had a wildfire that ripped through a suburban area of Boulder, Colorado, destroying over 1,000 homes in just a matter of hours. When I think about the



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Midwest, and I think about tornadoes. I think about a tornado that went through Mayfield, Kentucky. The longest tornado on record, happening in December. We normally think about tornadoes happening in the spring or the summer, not in December.

When I think about the tropics, and I think about tropical storms, we can just look back to last summer— Hurricane Ida. We're seeing more and more major hurricanes than we ever have before. Category four, category five. Hurricane Ida, category four hurricane. Made landfall—stayed a category four hurricane for several hours. Unheard of. When they make landfall, they usually dissipate. Not Ida. But she wasn't done yet. She then traveled across nine states and finished her path of destruction, on the east coast. So that brings me to floods and flash flooding. New York City had a record rainfall amount from this post tropical system. A record that they broke that was set just two weeks before.

And then I think about heat. I think about heat domes that we're seeing in the Pacific Northwest. You've heard a lot today about these types of threats that are going on. In fact, I read an article just the other day, that scientists believe that they can now directly link these heat domes are a direct result of climate change. And if you didn't know, heat-related deaths are the number one killer in America from natural hazards.

No one in this room is immune. The disasters that we are seeing, they're increasing. They're growing.

So when I look at this map, right here. This is a representation of all of the major disaster declarations FEMA has given since the year 2000. You can see areas that are in darker red, which means that they are getting repetitive disasters year after year.

But this is just those that got a major disaster declaration. This does not include all of those other events that just don't rise to that level. Events that are still impacting communities each and every day.

It's history. History is important. We have to understand the threats that we have faced in the past, but we have to be better prepared for the threats that we are going to face in the future, because our landscape is changing.



We have another map here that talks about the potential wildfire probability through the year 2052 – showing increased risk across the nation in areas that haven't traditionally experienced this type of wildfire risk. We also earlier today, some of the work that's coming out of the President's Climate Office, that's showing other future risk. We have to start to embrace the fact that our world is changing around us, and we have to be able to use this type of technology to help us plan for the future. This type of predictive data geospatial science has never been more important to help our emergency management community get ahead of the threats that we are going to face in the future. Because right now, today and in the future, we are looking to data more than we ever have to help drive our decisions and our ability to help people.

So where does this information come from? Who's behind this information? I learned a lot today about where a lot of this information is coming from, and all of the people that are behind creating all these amazing tools. I'm going to give you an example on one of our tools and how we use this information to help drive our decision making to help drive how we direct resources to help people. This right here is our National Risk Index. You can find this on [fema.gov](https://www.fema.gov), and this gives us information about different risks that receive, those that I just talked about, and it combines it with social vulnerability, with community resilience, and it gives us a 30,000-foot view of really what the risk really is across our nation. This is powerful. This is such a powerful tool for us to use for emergency managers to be able to go in here and better understand the risks and their communities, so they can help develop their investments to help reduce the impacts of these risks. We will not be able to keep up with the response and the recovery cycle if these threats continue to grow. We need information like this to help us get ahead of it and reduce those impacts.

The individuals can use this risk index as well. We have seen through the COVID-19 pandemic a number of people who have moved across the country. They're living in areas that they haven't lived in before. They're living with risk that they may have never experienced in the past. Tools like this, individuals can now go in, tools that we saw earlier today, and learn what their risk is in their communities so they can figure out how to plan and prepare to protect their families better.

So let's get a little bit deeper in this. How do we use this information? Well, I'm going to start by having you look at the imagery behind me, behind all of these screens here. I talked a little bit ago, about Mayfield, Kentucky. The tornado that



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went through in December of last year. This is the imagery from that tornado. This is the imagery from the destruction that that tornado caused. So why is this so important? Well, this imagery is important because the sooner we can get it, and in this case, getting this kind of fidelity, this kind of eyes on without having to spend people in the field, within hours, within days of an incident happening, directly informed my recommendation to the President of the United States to say this needs to be a major disaster declaration. In the past, we would have sent people in the field. We would have walked around neighborhoods for days or even weeks to come up with that determination. But by using imagery that helps us make those decisions sooner so we can get people on the ground. Myself and my team, we were on the ground within 48 hours of this tornado making landfall.

Now we go a little deeper. We look at this image right here behind me. This now takes that path of the tornado, and it overlays it on top of that national risk index. We can now look at our neighborhoods that are the most vulnerable in society in general and see who has been impacted by this disaster, by this tornado. We can pinpoint those neighborhoods, instantly almost, and direct our resources to go in there, instead of trying to figure out again days or weeks of where the damage is. We can use this kind of information, focus those resources, get them to those neighborhoods that we know are going to need it most, especially those communities that are most vulnerable.

We'll take it a step further. We will also add our applicant registration data. So when there's a major disaster declaration, an individual can call FEMA, they can go online and they can ask for help. We take that information and lay it on top of here and I can see who has asked for help. But more importantly, I can see you hasn't asked for help. I can see those communities that are the most vulnerable and I can see whether or not they have registered for assistance. And if they haven't, I can take my people, our resources to them. Because in the end, it is all about people. It is people first.

This image is an example of our disaster survivor Assistance teams, one of our most powerful resources that we have. They are the face of FEMA immediately after a disaster happens, and with the type of information and the type of data that I just talked about, I can direct them to the street level of where to go help people. They go down with their iPads. They register them for assistance right in their front yard, and many of them will have financial assistance in their bank accounts within a few days.



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Powerful. Really helps us get to people. Helps us bring our services to the people, instead of making them figure out how to navigate our level of bureaucracy.

But we cannot do this alone. This is all about partnerships. This is about mapping common ground. One of the strengths of the emergency management community is partnerships. We know who to bring together to make sure we're having the right conversations. Our emergency management community, they do not have to be the subject matter experts in what we're trying to solve. They know though, who is, and they know how to bring them together and have those conversations. An example of this is our NRCC—our National Response Coordination Center. This is where we bring our federal family together at FEMA headquarters—our nonprofit partners, our NGOs, sometimes our private sector, and we sit side by side and we share information. We work together and collaboratively to solve the tough problems that we are being faced with.

But as you can see from the threats that we are facing this person-to-person relationship going into the future is not going to be enough. We have to have digital handshakes. We have to have the ability to share information digitally, quickly, so we can make quicker decisions to help people. Our Geospatial Resource Center is a great example of how we are doing this digitally. This is our digital NRCC. This is where all of our different federal family, our private sector, our NGOs are inputting their data to help us solve the tough, complex challenges that we are facing today.

But we don't just do this during response. We use this portal, this hub, before, during and after disasters. So, before disasters, we partner with agencies like NOAA, with USGS, with NASA. They give us predictive information. They give us modeling, so we're not only solving our problems based on historical data, but we're looking to the future, we're looking to what those trends are going to be to help guide our local emergency managers, our state emergency managers and how they can better invest their money to reduce the impacts that we're seeing from these disasters. We have to be able to use this information before so we can build a stronger, more resilient nation.

But when we do have to respond, I think you heard me say in the video, time is our most precious commodity. We have to have information quickly, so we can save lives. We gather information from our partners like the American Red Cross and our local first responders. They give us valuable information to help us better



understand the impacts that this disaster is having. We use things like remote sensing to help us better identify where people might be. A really great example of this is the tragic events that happened in June of last year, just over a year ago in Miami, Florida, with the Surfside condo collapse. Our urban search and rescue teams, they used remote sensing to help direct and target where they were going to do their search efforts. When minutes if not seconds, were going to make a difference. It was this type of technology that helps focus our efforts so precisely that we can do the most good for the most people.

But then after, we want to build more resilience. We want our communities to come out of this stronger. So, we partner with companies, partners like the Army Corps of Engineers the Department of Transportation, or local public works departments. We work with them as we are trying to rebuild these communities, as we are helping them repair their infrastructure. So, we can repair it better and more resilient, so they can withstand the impacts of these future threats that we are going to face.

So, I have a call to action for all of you. Right now, your nation needs you more than it ever has. As I said, nobody is immune. I bet many of you in this room have experienced some type of natural disaster, natural weather event. So, what I need you to do is a few things. I need your ideas. I need your creativity. I need your passion. Everything that we heard this morning is so inspiring. And it's that that type of creativity and passion that needs to continue, so we can continue to get better at what we're doing. I need you to connect and grow with each other in this room. This is such an amazing opportunity to make new relationships, learn new things, get ideas, go back to your agencies and help them see how they can do things better. I need you to develop and continue to push to develop innovative tools. So much of what we saw today – so much creativity and innovation out there. It's only going to continue to get better and make the biggest difference in people's lives.

This room is full of the brightest minds that are out there. If there is anybody that can help us solve these types of tough problems, it's everybody here in this room. So, I ask you this, keep pushing the boundaries, keep innovating and creating. So we can save the most lives, we can protect the most property and we can create sustainable communities for generations to come, for our children, for our grandchildren to thrive in.



I will leave you with this: Remember, from challenge comes change—so let's begin.



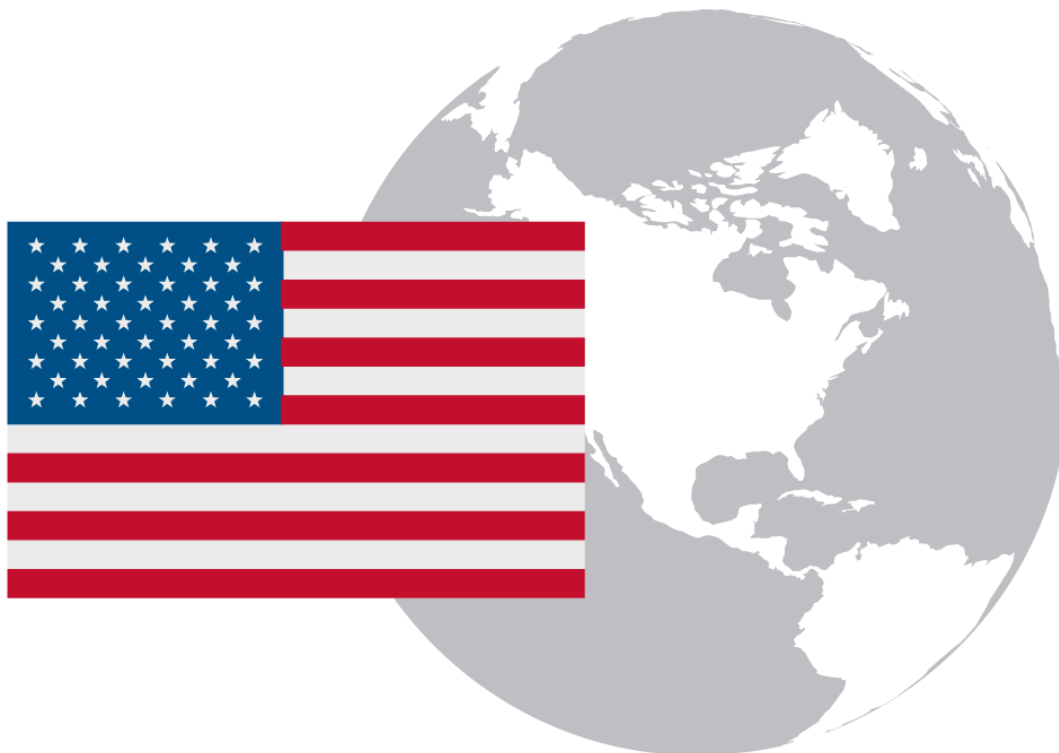
FEMA

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About Us | FEMA.gov

 fema.gov/about

22 de janeiro de 2025



[English](#)

The Federal Emergency Management Agency (FEMA) employs more than 20,000 people nationwide. Headquartered in Washington, D.C., we have 10 regional offices located across the country. We leverage a tremendous capacity to coordinate within the federal government to make sure America is equipped to prepare for and respond to disasters.

Mission, Values and History

Graphic



Our Mission

FEMA's mission is **helping people before, during and after disasters**, and our core values and goals help us achieve it.

Core Values

The core values that guide our agency can be found in our capstone doctrine, "[We Are FEMA](#)" or [Publication One \(Pub 1\)](#).

Pub 1 helps us understand our role in the emergency management community and gives our agency direction in how we conduct ourselves each day.

History of FEMA

FEMA was officially created in 1979 through an executive order by President Jimmy Carter. Our history can be traced as far back as 1803.

On March 1, 2003, FEMA became part of the Department of Homeland Security. [Learn more about our history.](#)

Structure

FEMA is comprised of Program Offices and Regional Offices located throughout the United States.

Our workforce can swell to over 50,000 active members during major disasters.

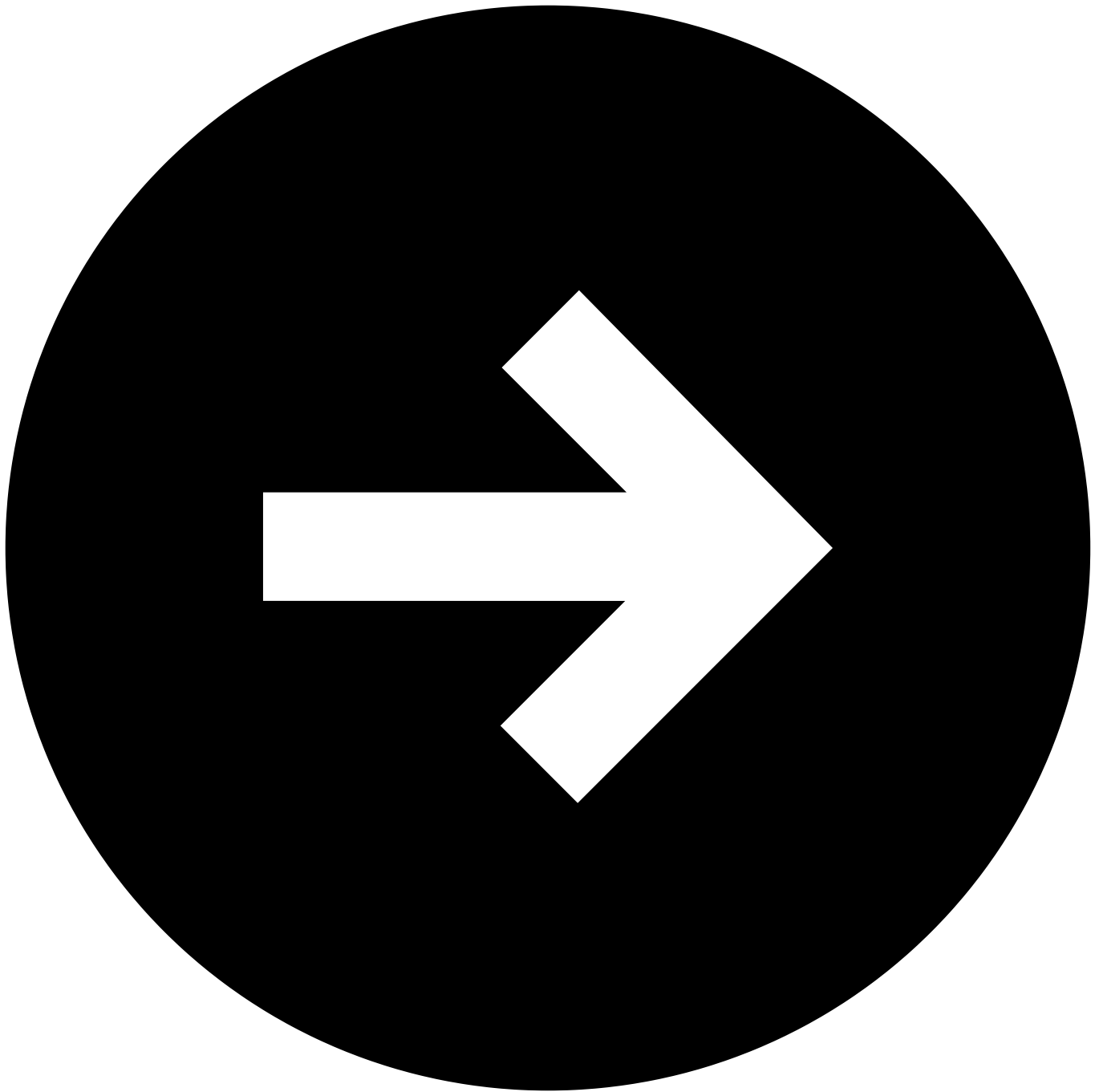
Learn more about joining FEMA in [Careers](#).

[Office of the Administrator](#)

[Offices & Leadership](#)

States, Regions, Tribes and Territories

View disaster declarations, news and contact information by state, region, tribe and territory.



[Tribal Affairs Resources](#)

Region States/ Territory

[Region 1](#) [Connecticut](#) | [Maine](#) | [Massachusetts](#) | [New Hampshire](#) | [Rhode Island](#) | [Vermont](#)

[Region 2](#) [New Jersey](#) | [New York](#) | [Puerto Rico](#) | [Virgin Islands](#)

[Region 3](#) [Delaware](#) | [Maryland](#) | [Pennsylvania](#) | [Virginia](#) | [District of Columbia](#) | [West Virginia](#)

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[Region 5](#) [Illinois](#) | [Indiana](#) | [Michigan](#) | [Minnesota](#) | [Ohio](#) | [Wisconsin](#)

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[Region 10](#) [Alaska](#) | [Idaho](#) | [Oregon](#) | [Washington](#)

Newsletters

FEMA has several publicly available newsletters that we email to subscribers. The newsletters range from information for emergency managers to location or [region](#) specific material for the general public in that area.

We also have an archive of the [FEMA Bulletin](#) available online. This publication highlights the agency's recent and upcoming program and policy activities and announcements.

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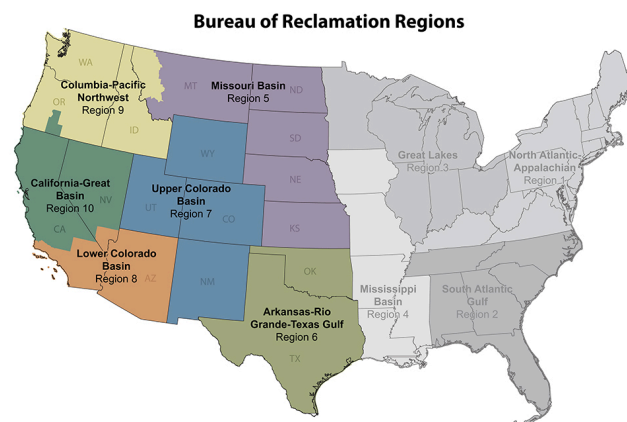
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About Us



Established in 1902, the Bureau of Reclamation is best known for the [dams, powerplants, and canals](#) it constructed in the 17 western states. These water projects led to homesteading and promoted the economic [development of the West](#). Reclamation has constructed more than 600 dams and reservoirs including [Hoover Dam](#) on the Colorado River and [Grand Coulee](#) on the Columbia River.

Today, we are the largest wholesaler of water in the country. We bring water to more than 31 million people, and provide one out of five Western farmers (140,000) with irrigation water for 10 million acres of farmland that produce 60% of the nation's vegetables and 25% of its fruits and nuts.

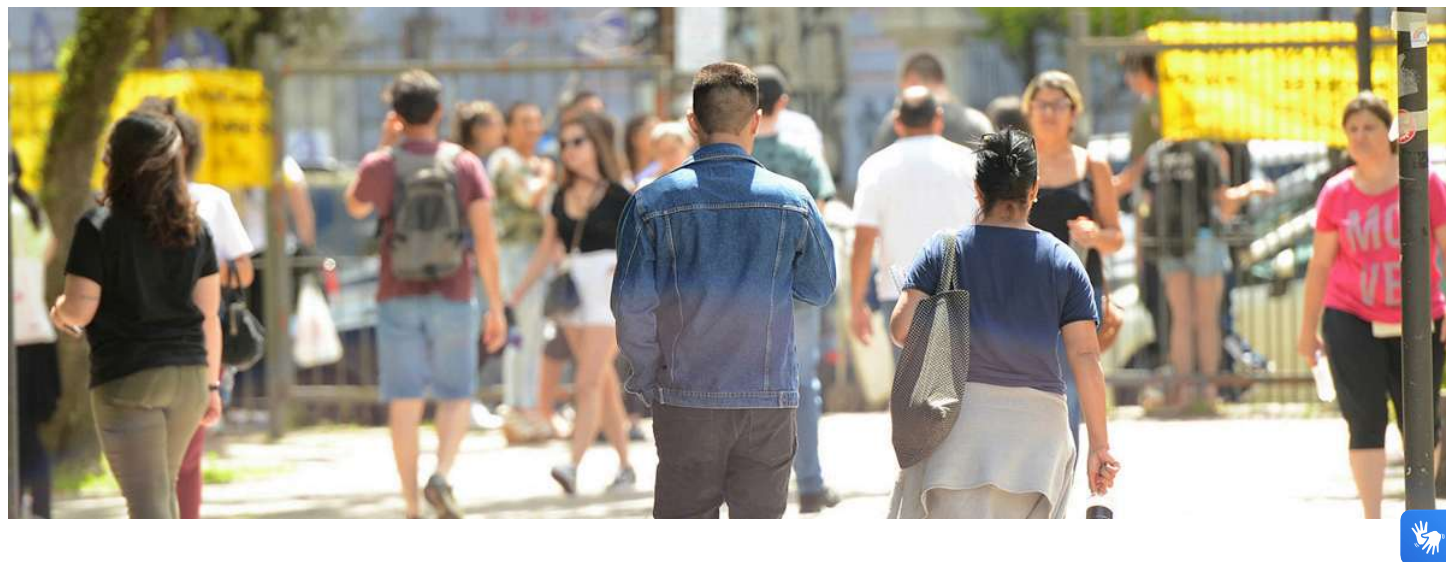
Reclamation is also the second largest producer of [hydroelectric power](#) in the United States. Our 53 powerplants annually provide more than 40 billion kilowatt hours generating nearly a billion dollars in power revenues and produce enough electricity to serve 3.5 million homes.



Today, Reclamation is a contemporary water management agency with a [Strategic Plan](#) outlining numerous [programs, initiatives and activities](#) that will help the Western States, Native American Tribes and others meet new water needs and balance the multitude of competing uses of water in the West. Our [mission](#) is to assist in meeting the increasing water demands of the West while protecting the environment and the public's investment in these structures. We place great emphasis on fulfilling our water delivery obligations, water conservation, water recycling and reuse, and developing partnerships with our customers, states, and [Native American Tribes](#), and in finding ways to bring together the variety of interests to address the competing needs for our limited water resources.

[Review Reclamation's Budget](#)

Last Updated: 1/7/20



Presentation

The Federal University of Rio Grande do Sul, headquartered in Porto Alegre, the capital of the state of Rio Grande do Sul, is a century-old institution, recognized nationally and internationally. It offers courses in all areas of knowledge and at all levels, from elementary school to postgraduate studies.

The qualifications of its faculty, composed mostly of masters and doctoral degree holders, the continuous updating of the infrastructure of its laboratories and libraries, the improvement of student support, as well as the prioritization of its national and international integration are policies under constant development.

Approximately 40,000 people circulate daily through its buildings in search of one of the most qualified educations in the country. This, combined with research of recognized excellence and outreach, which provides diverse activities to the community, allows UFRGS to achieve high levels of evaluation.

UFRGS, as a public institution serving society and committed to the future and critical awareness, respects differences, prioritizes experimentation and, above all, reaffirms its commitment to education and the production of knowledge, inspired by the ideals of freedom and solidarity.



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Telephone directory





Find it at UFRGS





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Presentation

THE Unisinos

Academic excellence as the guiding principle to become the preferred university in Rio Grande do Sul.

Founded in 1969, the University of Vale do Rio dos Sinos – Unisinos, has been consistently ranked by the Ministry of Education (MEC) among the best private universities in Brazil for several consecutive years. Unisinos was the first Latin American university to receive ISO 14001 certification and, at the invitation of the United Nations Academic Impact (UNAI), became the first Brazilian university to be a reference hub for a UN Sustainable Development Goal (SDG).

With over 150,000 graduates, the University offers more than 77 undergraduate degree programs in on-campus, distance learning (EaD), and hybrid formats. With strong roots in Rio Grande do Sul, Unisinos aims to become the preferred private university in the state, recognized for its excellence in education and the quality of its student training.

With various Master's and Doctoral programs in its graduate programs, and more than 45 options in lato sensu (specialization courses), the institution maintains and develops strategic partnerships with companies and universities in Brazil and around the world. At Unisinos, research encompasses 113 projects with 225 researchers, in addition to maintaining partnerships with 181 educational institutions in more than 35 countries, which strengthen research and allow for the scientific exchange of students and researchers. These numbers place the institution among the private universities in Brazil that invest the most in research.

The courses offered by the University are anchored in a School concept, divided into six areas: Management and Business, Health, Polytechnics, Law, Humanities, and Creative Industries. The Schools promote the production of knowledge in the pursuit of innovative solutions to society's challenges.

INNOVATION – The Unisinos Innovation Portal connects the University to the market and transforms research and technology into innovation. The Technological Institutes are equipped with high-tech equipment and act as

partners of companies and organizations, contributing to the competitiveness and sustainability of the state and the country.

With over 20 years of existence, the **São Leopoldo Technology Park – Tecnosinos** – is one of the most solid parks in Latin America, bringing together more than 100 established, graduated, and incubated companies, as well as startups. The park contributes to the sustainable development of the region, generating approximately 8,000 high-value direct jobs, increasing tax revenue, and fostering an entrepreneurial culture.

At Tecnosinos, global companies join dozens of startups incubated and graduated from the **Unisinos Incubator (Unitec)**, generating innovation that drives the economy. The Incubator is a business unit of Unisinos that fosters and executes technological innovations, integrating academic knowledge and companies through applied research.

SOCIAL RESPONSIBILITY – University Social Responsibility is also a concern of Unisinos, which operates through 16 Social Projects serving more than 13,000 people in vulnerable situations.

ASAV – Unisinos is maintained by the Antônio Vieira Association (ASAV). Founded on November 4, 1899, ASAV is a non-profit organization linked to the Society of Jesus, and acts as one of the civil arms of the Jesuit Province of Brazil. Its purpose is the promotion and development of education and social assistance for the dissemination of the Christian faith and ethics advocated by the guidelines of the Society of Jesus.

The Association supports more than 20 units in Brazil, which are educational institutions and social assistance entities, guided by Jesuit principles. The association also provides assistance to projects in the states of Rio Grande do Sul, Paraná, Santa Catarina, Mato Grosso, Rondônia, Piauí, Amazonas, Bahia, Ceará, and Pará.



Where are we?

Discover the locations where Unisinos has a presence, in the three states of the Southern Region of the country and in São Paulo.



Structure

From computer labs to the sports complex, see the university's extensive facilities.



Recognition

The quality of teaching and research at the university is attested to by regular evaluations.



Environment

Promoting environmental awareness through actions such as recycling and reducing water and energy consumption.

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UNISINOS is maintained by the Antônio Vieira Association (ASAV), a non-profit, philanthropic, educational, cultural, social assistance and charitable private law institution, certified as a Beneficent Entity of Social Assistance (CEBAS) in the areas of education and social assistance.

[read more](#)





[Home](#) > [University](#)

University

The Federal University of Pampa (Unipampa) was part of the program to expand federal universities in Brazil. A Technical Cooperation Agreement signed between the Ministry of Education, the Federal University of Santa Maria (UFSM), and the Federal University of Pelotas (UFPEl) foresaw the expansion of Higher Education in the southern half of the state of Rio Grande do Sul.

The Federal University of Pampa was created by the federal government through Law No. 11,640, of January 11, 2008, to minimize the process of economic stagnation in the region, since education enables regional development, seeking to be an agent of the definitive incorporation of the region into the development map of Rio Grande do Sul.

The expansion of public higher education, with the creation of the Federal University of Pampa, in addition to fulfilling a long-held dream of the population, allows young people, eager for knowledge, to remain in their region of origin and acquire the necessary information to drive the progress of their region, at a time when qualified labor is being trained, and the self-esteem of its inhabitants is increasing, resulting in the emergence of new families, whose children will envision options for developing cultural societies. and economically independent.

[Creation Law](#)

[Institutional Presentation of the Federal University of Pampa \(.pdf\)](#)

[Unipampa in Numbers](#)

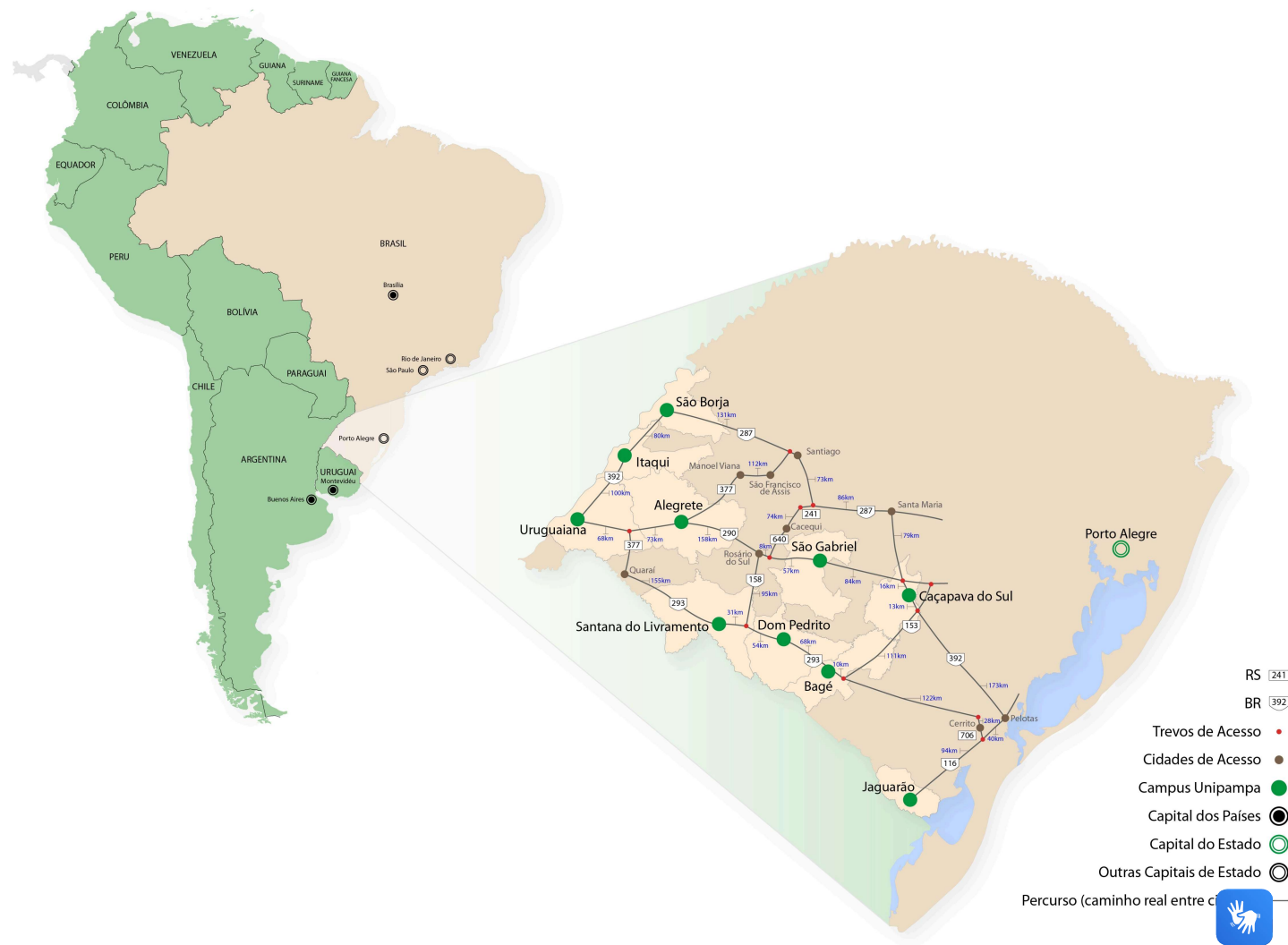
[Unipampa Statute](#)

[General Regulations of Unipampa](#)

[Institutional Development Plan \(IDP\)](#)

[Integrated Management Reports](#)





Also check out Unipampa's distance learning centers.

1,060,672 reads

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Opening hours are from 8:00 AM to 12:00 PM and from 1:30 PM to 5:30 PM.



Summary of the Clean Water Act

33 U.S.C. §1251 et seq. (1972)

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972.

Under the CWA, EPA has implemented pollution control programs such as setting wastewater standards for industry. EPA has also developed national water quality criteria recommendations for pollutants in surface waters.

The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained:

- EPA's National Pollutant Discharge Elimination System (NPDES) <https://epa.gov/npdes> permit program controls discharges.
- Point sources are discrete conveyances such as pipes or man-made ditches.
 - Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need a NPDES permit;
 - Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

Compliance and Enforcement

- Clean Water Act Compliance Monitoring <https://epa.gov/compliance/clean-water-act-cwa-compliance-monitoring>: investigations and inspections
- Water Enforcement <https://epa.gov/enforcement/water-enforcement>

Quick Links

- 2018 version of CWA from the U.S. Code <https://www.govinfo.gov/cont ent/pkg/uscode-2018-title33/pdf/uscode-2018-title33-chap26.pdf> (233 pp, 1.23 MB)
- The official text of the CWA continues to be available in the *United States Code* <https://www.govinfo.gov/app/collection/uscode/> from the US Government Printing Office

History of this Act

- EPA History: Federal Water Pollution Control Act Amendments of 1972 <<https://epa.gov/history/epa-history-federal-water-pollution-control-act-amendments-1972>>
- History of the Clean Water Act <<https://epa.gov/laws-regulations/history-clean-water-act>>
- Archived EPA History: Clean Water Act <<https://epa.gov/history/epa-history-clean-water-act>>

More Information

The Office of Water (OW) <<https://epa.gov/aboutepa/about-office-water>> ensures drinking water is safe, and restores and maintains oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

- The EPA Watershed Academy <<https://epa.gov/watershedacademy>> provides training courses on statutes, watershed protection, and other key Clean Water Act resources.

Last updated on May 22, 2025

A Revista *Águas Subterrâneas* informa que estará em **recesso editorial por um período de dois meses**, com retorno das atividades previsto **para 15 de março**, em razão da **alta demanda de manuscritos acumulados em processo de avaliação e publicação**. Durante esse período, novas submissões ficarão indisponíveis no sistema. Agradecemos a compreensão de autores e avaliadores.

Editoria da Revista *Águas Subterrâneas*



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Analysis of the structural compartment of the crystalline basement aquifer system in the municipality of Bagé (RS) based on the use of lineaments (SRTM and magnetic) and hydrogeological data

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Abstract

This paper presents the study for defining hydrogeological compartments of the Crystalline Basement Aquifer System, in the municipality of Bagé (RS). For this study, hydrogeological data from 174 tubular wells and lineaments data obtained from SRTM images and aerogeophysical survey were used. To perform the structural assessment of the area morphostructural lineaments on the SRTM images in different scales (1: 1,000,000; 1: 500,000 and 1: 250,000) were traced, as well as structures were identified by analyzing and interpreting aeromagnetic data. These data were used to identifying the existence of structural compartments. Data from the tubular wells were analyzed and used for the hydrogeological characterization and the structural compartments in the studied area. The results indicated the occurrence of five main structures, presenting lengths between 8.62 and 30km. Based on these structures five zones (Z1 to Z5) with distinct characteristics were defined. Zone 1 show the main trends as N80-90E and N60-70E and specific capacity of 0.005 m³/h/m and flow rate of 0.46 m³/h. In Zone 2 the main trends range between N20-30E, N50-60E and N30-40E, with a maximum specific capacity of 6.93 m³/h/m and a maximum flow rate of 16.5 m³/h. In Zone 3, the trends are N50-60E, N40-50E and N30-40E, with a maximum specific capacity of 3 m³/h/m and a maximum flow rate of 20.37 m³/h. In Zone 4, the main trends range from N70-80E to N20-30E, with maximum specific capacity of 2.13 m³/h/m and a maximum flow rate of 12 m³/h. Finally, the main trends in Zone 5 are N70 -80E, N20-30E and N00-10W, with a maximum specific capacity of 1.5 m³/h/m and a maximum flow rate of 3682³/h.

Therefor these results show that the region of the municipality of Bagé is divided into zones presenting different productivity and structural trends, emphasizing that Zone 2 has structures with higher productivity. Thus, the analysis of magnetic and morphostructural lineaments proves to be an important technique for evaluation of structural and hydrogeological compartmentalization of areas with occurrence of fractured aquifers

How to Cite

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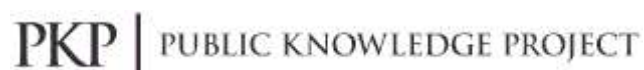
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Extreme Weather

 cisa.gov/topics/critical-infrastructure-security-and-resilience/extreme-weather



America's Cyber Defense Agency

NATIONAL COORDINATOR FOR CRITICAL INFRASTRUCTURE SECURITY AND RESILIENCE

Overview

Over the last 50 years, much of the U.S. has seen increases in prolonged periods of excessively high temperatures and an associated expansion of drought. This contributes to larger wildfires burning more acreage per incident, heavier downpours leading to torrential flooding, more intense winter weather events, stronger tropical storms, and a persistent increase in sea level rise across all coasts as baseline temperatures continue to rise.

These shifts from severe weather to more damaging events nation-wide has led to impacts across all 16 critical infrastructure sectors and a growing need to improve resiliency. Extreme weather events have become far more disruptive and destructive than ever recorded and are projected to steadily worsen.

CISA's Role

It is CISA's mission to ensure critical infrastructure is protected against extreme weather threats and events. Infrastructure built in the 1900s to early 2000s using climate data from the mid-1900s lacks the ability to withstand the changes occurring in both intensity and frequency of extreme weather events and could experience excessive damage or destruction.

CISA analyzes extreme weather and its impacts to critical infrastructure. We discuss potential increases in weather damages with infrastructure owners and operators, conduct exercises centered around damages from major weather events with stakeholders, and develop resiliency focus documents to outline practical guidelines and strategies for implementation.

CISA analyzes and shares current data trends and findings through:

- Open-Source weekly summaries on national-international climate studies, recent weather impacts, new research opportunities, and products focused on extreme weather.
- Presentations about national, regional, state, or infrastructure-related climate impacts and the cascading effects to physical infrastructure, site operations, and community resilience.

- Impact analyses of [National Critical Functions](#).
CISA and the Homeland Security Operational Analysis Center (HSOAC) developed a [risk management framework](#) to assess the risk of extreme weather to higher vulnerability NCFs.
- Regional Resiliency Assessment Program (RRAP) reports addressing the impacts of extreme weather events to a sector or region for cascading impacts.
There are several ongoing and planned RRAPs with climate impact-related aspects, such as drought, sea level rise, and harmful algal blooms affecting water supply.
- Factsheet to address extreme weather impacts to telecommunications.

CISA, through the Analytic Exchange Program (AEP), produced a website to further engagement with critical infrastructure owners and operators as well as communities across the nation by providing amplifying information on each of the eight worsening weather hazards, methods of identifying site-specific extreme weather forecasts, and federally backed climate resiliency options for consideration with associated funding opportunities from both government and private sector entities.

This website hosts numerous studies, factsheets, and resources from interagency partners and the scientific community, furthering CISA's commitment to a whole-of-government approach to resiliency planning and coordination of mitigation efforts.

<https://experience.arcgis.com/experience/a1ec0d1276064ae387c863f2a14b11e1/>

Severe Weather vs. Extreme Weather

Severe weather is considered to be an intense variation of a regionally common weather event, such as a heavy rainfall event or damaging winds. Extreme weather identifies the trend of more severe weather events both in frequency and intensity, such as torrential rain (excessive rain periods where over one month of rain can fall during a single storm) or record-breaking peak gusts with widespread wind damage.

Extreme weather is the most intense climate element observed during a given period, typically longer lasting or more damaging than the historical 'worst case' events. Infrastructure is built to climatological norms for the 20-40 years prior to development, accounting for typical severe weather events experienced regionally but not planning for withstanding extreme weather events. As extreme weather events become more common, critical infrastructure sites will need to revisit building codes, material limitations, and regional damages during past severe events to address areas at greatest immediate risk.

Extreme Weather Threats

Extreme weather threats are occurrences of unusually severe weather that can cause devastating impacts on communities, infrastructure, agricultural, and natural ecosystems.

Prolonged Drought

Droughts have become more frequent, longer, and more severe, causing billions of dollars in damages in the U.S. Droughts can impact critical infrastructure sectors such as transportation, energy and water that millions of Americans depend upon.

Extreme Heat

The ten warmest years in the 143-year record have all occurred since 2010, with the last nine years (2014–2022) ranking as the nine warmest years on record. Heat events can damage transportation, lead to power outages, and threaten public health.

Wildfires

Over the past 40 years, the average number of acres of forested land consumed by wildfire each year in the United States has increased by 1,000%. Wildfires can disrupt transportation, communications, power and gas services, and water supply.

Extreme Cold

Over the past 40 years, major extreme cold events have caused disasters totaling over \$120 billion dollars. Damages from these events were caused by icing, freezing rain, heavy snow, ice storms, freezing spray/fog, and lake effect.

Sea Level Rise

Of the 25 most densely populated and rapidly growing U.S. counties, 23 are along a coast facing exposed infrastructure networks, saltwater contamination, immobilization of transportation, grid failures, and prolonged disruption.

Torrential Flooding

Over the past 20 years the US has reported 4x the amount of billion-dollar flood disasters compared to 1980-2000. Large floods can damage assets in nearly all critical infrastructure sectors and can be life threatening.

Tropical Cyclones

Climate amplified tropical cyclones have caused over \$1,333 billion in damages since 1980. Winds, hail, and rising waters in a storm path can span numerous states and cause severe damage to critical infrastructure systems.

[Severe Storms](#)

Since 1980, severe storms have caused over \$383 billion in total damages. As developments in hazardous areas continue and atmospheric instability increases, critical infrastructure sites will see increased damage.

Extreme Weather Resources and Publications

[Drought and Extreme Heat Impacts to Data Centers in Northern California](#)

JUL 20, 2023 | EXTERNAL, PUBLICATION

Support planning by SRMAs, SLTTs and critical infrastructure in response to natural disasters and hazards, consistent with the Homeland Security Act of 2002, as amended. This report can be expanded nationally for threats to the energy and IT Sectors from extreme heat and drought.



[Infrastructure Resilience Planning Framework \(IRPF\)](#)

NOV 22, 2022 | PUBLICATION

This planning framework provides processes and a series of tools and resources for incorporating critical infrastructure resilience considerations into planning activities.

[View Files](#)

[Drought Guide](#)

PUBLICATION

A quick guide to drought forecasts and how drought can affect infrastructure operations and provide mitigation planning tools.

[View Files](#)

[CISA Resilient Power Best Practices for Critical Facilities and Sites](#)

PUBLICATION

This document, developed by CISA working with the Resilient Power Working Group (RPWG), provides resilient power best practices for critical facilities and sites (excluding electrical and natural gas utility companies).

[View Files](#)

[2023 Chemical Security Summit Presentations](#)

PUBLICATION

Select presentations from the 2023 Chemical Security Summit hosted by the Cybersecurity and Infrastructure Security Agency (CISA) in August 2023.

[View Files](#)

[View All Extreme Weather Resources](#)

Partnerships

CISA partners with other agencies and groups with weather-related expertise and knowledge to further advance our mission to protect critical infrastructure systems.

[NOAA's National Center for Environmental Information \(NCEI\)](#)

NCEI provides recurring reports covering national weather events, global climate extremes, drought updates, wildfire statistics, snow and ice coverage, tornado trends, and more.

[National Climate Assessment](#)

The Fifth National Climate Assessment is the US Government's preeminent report on extreme weather impacts, risks, and responses.

[Federal Emergency Management Agency \(FEMA\)](#)

FEMA works with state, local, tribal and territorial governments to build and deliver resources and capabilities that ensure the nation can withstand climate hazards of today and those we anticipate for tomorrow.

[Climate Mapping for Resilience and Adaptation](#)

Discover climate-related hazards through this portal.

[NOAA's Climate.gov](#)

NOAA's Climate.gov provides timely and authoritative scientific data and information about climate science, adaptation, and mitigation.

Additional Federal Resources

EPA Climate Indicators in the United States

The EPA's [Climate indicators](#) provide evidence of extreme weather and their impacts on people and the environment.

USDA Climate Hub

The USDA's [Climate Hub](#) features events, resources and tools to address challenges and responses to the nation's agriculture due to extreme weather.

DOT Climate and Sustainability

DOT's [Climate and Sustainability](#) demonstrates how the DOT is committed to using all of its authorities to substantially reduce greenhouse gas emissions and transportation-related pollution and build a more resilient and sustainable transportation systems to benefit communities.

DOD Tackling Extreme Weather

DOD's [Tackling Extreme Weather](#) shows how the DOD is elevating this as a national security priority, integrating climate considerations into policies, strategies and partner engagements.

DOJ Environment and Natural Resources Division

The [Environment and Natural Resources Division \(ENRD\)](#) is responsible for bringing cases against those who violate the nation's environmental laws as well as defending the federal government in litigation arising under a broad range of environmental statutes.

GSA Climate Action and Sustainability

Learn more about how the [GSA](#) is developing robust and resilient capacity to manage extreme weather risks and secure federal real property and supply chain investments.

DOI Tackling Extreme Weather

The DOI's Tackling Extreme Weather prioritizes action for a more equitable and sustainable future.

DOS Working Together for Future Generations

At the DOS's [The Climate Crisis: Working Together for Future Generations](#), learn more about how the United States is doing its part to build a net zero-emission, resilient future that creates good jobs and ensures a healthy, livable planet for generations to come.

Contact Us

To request a service or ask a question about Extreme Weather, please send an email to Extreme.Weather@CISA.DHS.GOV.

About

The Economic Policy Institute’s vision is an economy that is just and strong, sustainable, and equitable — where every job is good, every worker can join a union, and every family and community can thrive.

About EPI. The Economic Policy Institute (EPI) is a nonprofit, nonpartisan think tank working for the last 30 years to counter rising inequality, low wages and weak benefits for working people, slower economic growth, unacceptable employment conditions, and a widening racial wage gap. We intentionally center low- and middle-income working families in economic policy discussions at the federal, state, and local levels as we fight for a world where every worker has access to a good job with fair pay, affordable health care, retirement security, and a union.

We also know that research on its own is not enough—that’s why we intentionally pair our research with effective outreach and advocacy efforts as we fight to make concrete change in everyday people’s lives.

More: Visit EPI’s Impact Report

EPI’s vision for equity, diversity, and inclusion (EDI). The Economic Policy Institute’s vision is for all workers to share equally in the economic prosperity of our country. Our research exposes the forces that seek to exclude and diminish the power of people of color and women—particularly Black, Brown, and indigenous people—to the benefit of white supremacy and wealthy elites. We recognize the economic legacy of anti-Blackness; slavery; colonialization; oppressive policies, practices, and institutions; and the persistence of structural racism, sexism, and xenophobia today. Therefore, our vision elevates the importance of racial, gender, and worker justice as central to the world we want to see.

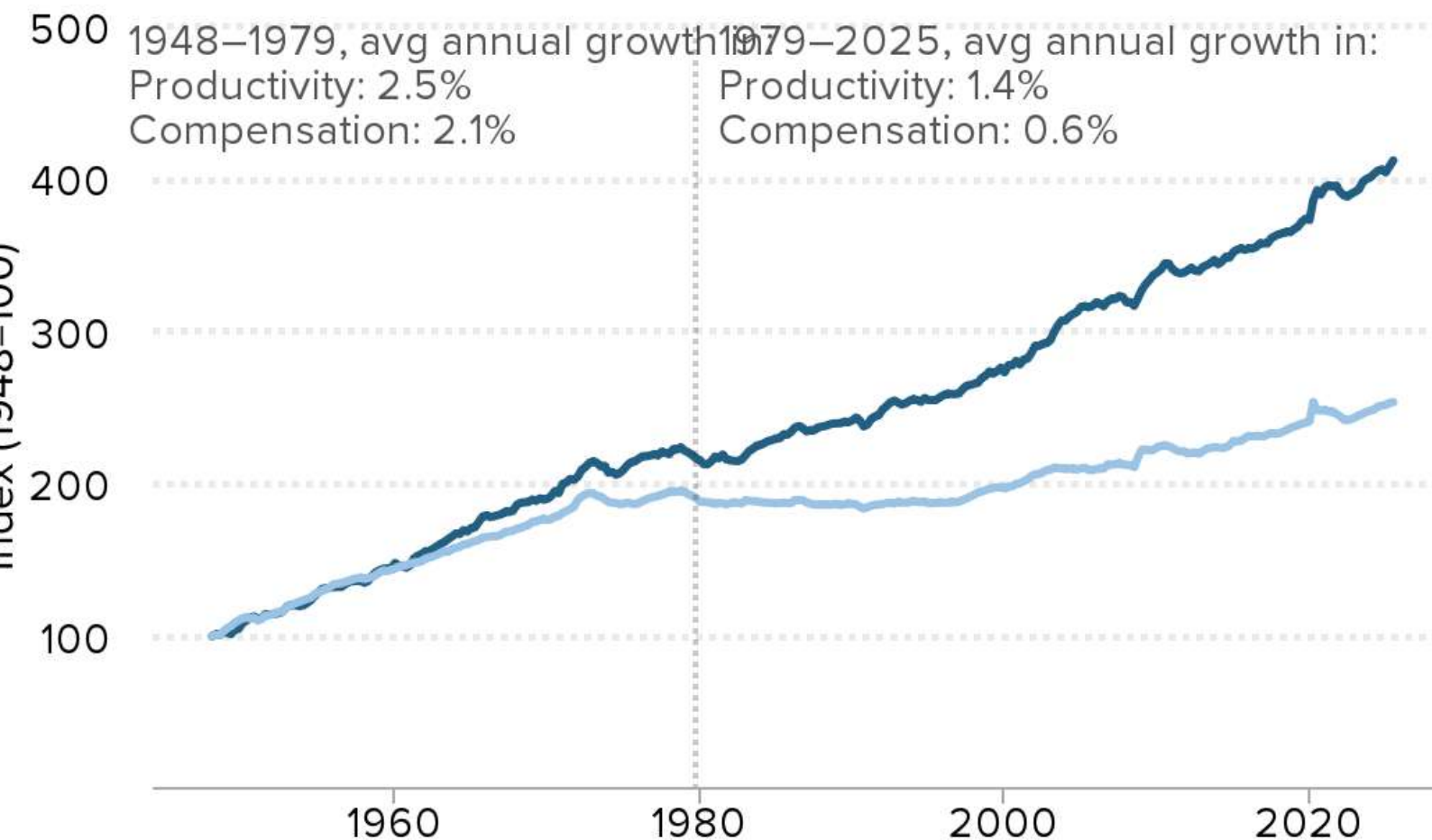
More: EDI vision statement and principles

A Window of Opportunity

The U.S. economy has deep and enduring systemic inequities that preclude many working people from sharing equally in our country’s prosperity. Inequality has skyrocketed over the last 45 years. The pay of the top 1% of earners grew by over 200%, while the earnings of working people grew at a fraction of that rate, and the racial wage gap widened. [Productivity and typical-worker pay gap widened dramatically since 1979. **Source and additional information**]

The gap between productivity and a typical worker's compensation has increased dramatically since 1979

Productivity growth and hourly compensation growth, 1948–2025



Economic Policy Institute

Economic Policy Institute

Notes: Data are for compensation (wages and benefits) of production/nonsupervisory workers in the private sector and net productivity of the total economy. “Net productivity” is the growth of output of goods and services less depreciation per hour worked.

Source: EPI analysis of unpublished Total Economy Productivity data from Bureau of Labor Statistics (BLS) Labor Productivity and Costs program, wage data from the BLS Current Employment Statistics, BLS Employment Cost Trends, BLS Consumer Price Index, and Bureau of Economic Analysis National Income and Product Accounts.

Despite steady economic growth, the American dream of a good job, a comfortable home, quality health care, a good education, and a secure retirement remains out of reach for tens of millions. This is no accident. It is the result of decades of policies that favor the interests of corporations and the wealthy over those of the vast majority.

Still, there are bright spots amid these troubling data points. Public support for unions is at a near 50-year high—thanks in part to our long-time advocacy of workers’ power and their right to organize. And more than just organizing, from Los Angeles to Detroit, labor unions are growing their power and winning. The Fight for \$15

minimum wage campaign has broken into the mainstream, and there is a growing focus on the yawning inequality we see between the uber-rich and the working class. Further—and driven in no small part by the Economic Policy Institute’s (EPI) leadership on the issue—federal policymakers have shifted toward macroeconomic policies that keep unemployment very low, a game-changing shift for working people.

In this moment, it is imperative that we act. We must produce cutting-edge research and advocate for structural changes and policy interventions that will benefit workers and their families.

Embedded in our work is an acknowledgement that not everyone faces the same challenges. Accordingly, we apply an intersectional lens to all that we do and interrogate how class, race, ethnicity, and gender affect working people.

We have seven strategic priorities:

1. Advance racial and gender justice: At EPI, we know that equity is essential to economic justice. Through our Program on Race, Ethnicity, and the Economy (PREE), EPI works to win policies that eliminate gaps in wages, income, and unemployment rates; improve economic outcomes across race, ethnicity, and gender; promote unionization as a means to advance racial and gender equity; and dismantle structural racism and institutional sexism. Our groundbreaking resource guide helps our partners advance anti-racist research and policy.

In 2023, we conducted original research to help build the case for policies that center the wellbeing of economically vulnerable families and children of color, and we informed more equitable economic and public health policies that help to advance our racial equity and racial justice goals. One report, *Chasing the Dream*, examined how in the 60 years since the March on Washington for Jobs and Freedom, little progress has been made in removing barriers to the full equitable integration of Black Americans into the U.S. economy.

2. Strengthen labor standards and protect workers’ freedom to join together in a union: EPI is a tireless voice for policies that strengthen workers’ job quality and economic security; raise the minimum wage; and create a pathway to citizenship for immigrants.

EPI has also built a compelling, evidence-based case for the importance of unions and other forms of worker power. We advocate for laws that protect workers’ freedom to form unions and bolster worker organizing campaigns with research and policy. EPI shows that advances in unionization are important not just for the power that unions have in helping all workers use their collective voice for change, but also for their proven ability to help raise the wages of Black workers and close the Black-white wage gap.

3. Make the economy work for working families: EPI believes that families must have robust supports including: fair scheduling and paid leave that allows them to take care of their loved ones; affordable and accessible childcare, long-term care, and elder care which compensates care workers fairly; dignity and economic security in retirement; and a robust unemployment insurance system which expands automatically when it is needed most.

EPI’s well-known **Family Budget Calculator** helps policymakers, advocates, and the public understand the income a family needs to attain a modest yet adequate standard of living, and EPI’s research on care workers has helped national and state partners advance campaigns to improve the quality of care and the living standards of care workers.

4. Fortify the public sector: EPI champions a robust public sector which protects and supports workers and their families. At the federal level, we analyze fiscal policy, revenue proposals, and spending and deficit projections as we advocate for progressive taxation to fund a robust public sector and strong social insurance programs. At every level, we work to ensure governments have the capacity to enforce laws protecting workers; deliver vital public services, including public education; invest in infrastructure and climate resilience; administer safety net and social insurance programs; and protect our democracy. EPI also advocates for policies that work to strengthen and expand the right of public sector workers to unionize.

5. Ensure climate and industrial policy centers workers: EPI promotes economic growth that is strong and equitable, but also clean and sustainable. EPI will champion industrial and climate policies that benefit workers and their communities; trade policies which boost investments in key sectors and restore bargaining power to workers; and investments that increase the supply and reduce the prices of housing.

Right now, progressives have a historic opportunity to use industrial policy to steer resources stemming from the Inflation Reduction Act, the CHIPS and Science Act, and the Bipartisan Infrastructure Law, to accomplish the economic justice goals we've long fought for, including: building worker power; strengthening labor standards; and advancing racial, gender, and climate justice.

Together, these bills establish more than 160 entirely new programs, impact hundreds of existing programs, and infuse billions of dollars into the economy. We must take advantage of these myriad opportunities and ensure these funds and programs are implemented successfully at the state and local levels and in an equitable, pro-worker manner.

Tying industrial policy to mandates that increase worker bargaining power and advance racial and gender equity is crucial. Linking industrial policy to labor standards and institutions has a rich and successful history in the United States and the current moment offers us a once-in-a-generation opportunity to lean into that history.

6. Shape the narrative on technology's impact on workers: Though often blamed for workers' distress, technological change has generally benefited working people and led to rising wages over time. Since its founding, EPI's research has counteracted narratives that scapegoat technological change as a driver of weak wage growth, highlighting that such arguments are often a deliberate distraction from the policy decisions that actually drive wage suppression by shifting power to employers. EPI will establish a forward-looking framework for assessing when technology is likely to be used as a tool for wage suppression and when it can be used to boost workers' productivity and leverage, steering the conversation toward proactive solutions.

7. Spearhead a progressive approach to macroeconomics: EPI has long advocated that macroeconomic policymakers should use all levers at their disposal to keep unemployment low. The Federal Reserve Board should set interest rates that achieve both stable inflation and maximum employment. When the Fed's tools aren't enough to generate full employment, Congress must step in with robust relief and recovery measures to generate vigorous job growth. The fruits of EPI's work can be seen in the government's response to the COVID-19 pandemic in 2020. In stark contrast to the austerity policies in the aftermath of the Great Recession that led to a decade of elevated unemployment, the Biden Administration successfully made several large fiscal investments that helped generate one of the strongest recoveries on record.

EPI will continue to call on policymakers to use all available tools to maintain tight labor markets. We will also advocate for policies to slash exorbitant CEO pay and work to counter claims that tax cuts for wealthy households and corporations spur economic growth.

As we advance our work in these seven areas, EPI is reshaping the narrative on the economy, countering harmful narratives, and advancing our vision for an economy that is equitable, strong, and sustainable. We do so by advocating progressive, proactive economic justice policies in Congress and in state legislatures; creating deep partnerships with national, state, local, and grassroots allies; and ensuring that our rigorous research continues to be cited in thousands of media outlets and shared on social media

EPI in the States

At the state level, EPI's Economic Analysis and Research Network (EARN) of 57 research, policy, and advocacy groups is at the forefront of battles for stronger labor standards; increases in worker bargaining power; higher pay for teachers and public sector workers; and racial, gender, and economic justice across the country.

Importantly, EPI works with and for people in 45 states and D.C. to address key issues of local concern. In the South, that means co-creating an economic agenda for worker, racial, and gender justice that prioritizes Black and brown workers. In the Midwest, EARN granted funds to five state partnerships in Iowa, Michigan, Missouri, Ohio, and Wisconsin to work on issues ranging from labor standards enforcement to universal basic income—and successfully battled wage theft in IA and OH. And recently, EARN committed to provide \$400,000 grants to five state partnerships over two years to advance policies that improve economic justice for children and families. This is but a sampling of EARN’s state- and local-level work and impact in communities.

Our Opportunity

The stakes have never been higher. We are living in a time of sharp ideological division, deep racial injustice, and profound economic inequality. Our very democracy is at risk. At the same time, major federal investments into clean energy innovation, along with a broad and growing interest in organizing for worker power, racial justice, and a fairer economy, have created enormous opportunities for progress. There is much work to do to ensure these investments are made equitably and that the Black and brown communities who have disproportionately experienced the harm of structural racism benefit from these investments.

To reach the program goals above, EPI has an operating budget of \$13.3 million in 2024 and needs to raise \$2 million in new funds. These resources will be used to expand EPI’s capacity to influence organizing and policy at the federal, state, and local level; support staff; and regrant funds to state EARN groups and grassroots partners.

A Bit of History

EPI provides visionary solutions and leadership. EPI was the first—and remains the premier—think tank to focus on the economic condition of low- and middle-income Americans and their families. EPI shapes public policy on the federal and state level through compelling research and innovative ideas. We are recognized as national leaders on breakthrough liberal economic policies. Our encyclopedic State of Working America, published 12 times since 1988, and in complete electronic form as well, is stocked in university libraries around the world. In the 1990s EPI researchers were the first to illustrate the decoupling of productivity and pay in the U.S. economy, a trend now widely recognized as a key element of growing economic inequality. EPI changed the nature of public debates over international trade agreements by underscoring their effects on workers and the importance of putting enforceable labor standards in trade agreements.

Economic Policy Institute at 25



EPI research associate and Yale university professor Jacob Hacker developed the concept of the public option—the idea that the government would provide health insurance and compete with private insurers to assure robust competition. EPI’s analysis has also shaped the way the economy is viewed. For instance, EPI researchers were the first ones to profile the emerging gap between growing productivity and the wages and compensation of typical workers. An EPI economist was the first to compute the ratio of unemployed workers to job openings—the job-seekers-to-job-openings ratio—a commonsense way to help the public understand the difficulty of finding a job. EPI has long profiled the stagnation of workers’ wages, the deterioration of job quality, and rising inequalities. EPI also oversaw the formation of the Economic Analysis and Research Network (EARN) of nearly sixty state and regional multi-issue research, policy, and advocacy organizations.

EPI has focused, and continues to focus unrelentingly and unfailingly, on the dynamics of wage stagnation for most workers and rising inequality and on what can be done to halt and reverse these trends.

Read *The workers’ think tank: A history of the Economic Policy Institute*

EPI’s research is cutting-edge, original, and reliable, and it spans a broad range of economic issues. EPI analyses are a trusted resource for policymakers, those in the media, national progressive advocacy organizations, and state research organizations. EPI conducts original research according to rigorous standards of objectivity and, as a result, is a reliable source of information and analysis. In-house researchers maintain their standing in the academic community by publishing findings in prestigious peer-reviewed academic journals and by delivering public lectures, speeches, and testimony. Our methods for ensuring our research methodologies are exemplary and include the use of highly qualified researchers and reviews by outside experts from across the ideological spectrum.

EPI has world-class expertise. Our team includes the best minds in economics and other disciplines. Our broad network of researchers and scholars has made EPI the authoritative source on the economic well-being of working Americans. EPI’s staff includes ten Ph.D.-level economists and a number of other experts with advanced degrees in sociology, public policy, and law. Our staff also includes 13 policy analysts and research assistants, and a full communications and outreach staff.

How we do it. EPI produces numerous research papers and policy analyses; sponsors conferences and seminars; briefs policymakers at all levels of government; provides technical support to national, state, and local constituency and advocacy organizations; testifies before national, state, and local legislatures; and provides information and background to the media. In a typical year, EPI is cited in the media more than 20,000 times and is mentioned and/or our staff are seen or heard by over 300 million people on television and radio.

Who supports us. EPI is a 501(c)(3) nonprofit corporation. Almost two-thirds of our funding comes in the form of foundation grants, while around one-fifth is from labor unions. EPI also receives support from individuals, corporations, and other organizations. See the figure below. A current list of EPI donors and a statement of our funding and disclosure principles is **available here**.

Sources of EPI funding in 2021

Source	Share of funding
Foundations	79%
Labor Unions	14%
Corporations/Organizations	2%
Individuals	3%
Other	2%

Economic Policy Institute

Other resources

- **2021 Audited Financial Statement**
- **2021 IRS Form 990**



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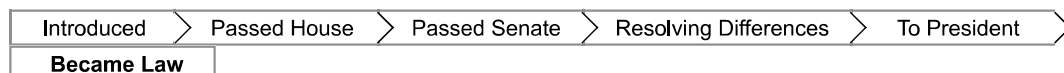
The Journal of Applied Geophysics with its key objective of responding to pertinent and timely needs, places particular emphasis on methodological developments and innovative applications of **geophysical techniques** for addressing **environmental, engineering, and hydrological** problems. Related topical research in **exploration geophysics** and in **soil and rock physics** is also covered by the *Journal of Applied Geophysics*.



H.R.3684 - Infrastructure Investment and Jobs Act

117th Congress (2021-2022)

Sponsor: [Rep. DeFazio, Peter A. \[D-OR-4\]](#) (Introduced 06/04/2021)
Committees: House - Transportation and Infrastructure
Committee Meetings: [08/04/22 10:00AM](#) [03/15/22 2:30PM](#) [06/09/21 10:00AM](#) ([All Meetings](#))
Committee Reports: [H. Rept. 117-70](#); [H. Rept. 117-70, Part 2](#)
Committee Prints: [H.Prt. 117-8](#), [H.Prt. 117-9](#)
Latest Action (modified): 11/15/2021 Became [Public Law No: 117-58](#). ([All Actions](#))
Roll Call Votes: There have been [35 roll call votes](#)
Tracker: 



Summary(3) Text(7) Actions(183) Titles(99) Amendments(539) Cosponsors(5) Committees(2) Related Bills(139)



There are 3 summaries for H.R.3684.

Public Law (11/15/2021)



[Bill summaries](#) are authored by [CRS](#).

Shown Here:

Public Law No: 117-58 (11/15/2021)

Infrastructure Investment and Jobs Act

Among other provisions, this bill provides new funding for infrastructure projects, including for

- roads, bridges, and major projects;
- passenger and freight rail;
- highway and pedestrian safety;
- public transit;
- broadband;
- ports and waterways;
- airports;
- water infrastructure;
- power and grid reliability and resiliency;
- resiliency, including funding for coastal resiliency, ecosystem restoration, and weatherization;
- clean school buses and ferries;
- electric vehicle charging;
- addressing legacy pollution by cleaning up Brownfield and Superfund sites and reclaiming abandoned mines; and
- Western Water Infrastructure.

DIVISION A--SURFACE TRANSPORTATION

Surface Transportation Reauthorization Act of 2021

This division reauthorizes Department of Transportation (DOT) federal-aid highway and transportation infrastructure finance and innovation (TIFIA) programs, revises research, technology, and workforce education programs, and addresses tribal transportation needs.

The effective date of this division is October 1, 2021.

TITLE I--FEDERAL-AID HIGHWAYS

Among other provisions, this title

- reauthorizes through FY2026 several surface transportation programs, including the federal-aid highway program, transportation infrastructure finance and innovation program (TIFIA), federal lands access and tribal transportation programs, Territorial and Puerto Rico highway program, and nationally significant freight and highway projects;
- reauthorizes through FY2026 other transportation programs, including the bridge investment program, congestion relief program, charging and fueling infrastructure grants, the rural surface transportation grant program, reduction of truck emissions at port facilities, nationally significant federal lands and tribal projects, ferry boat construction, and research, technology, and education programs;
- provides statutory authority for DOT's Safe Routes to School program;
- establishes a wildlife crossing pilot grant program to reduce wildlife-vehicle collisions;
- directs DOT to encourage states to develop a voluntary human capital plan for the transportation-related workforce needs of the states;
- provides statutory authority for federal agency coordination and streamlining of environmental reviews and authorizations for major infrastructure projects;
- addresses climate change by establishing a grant program for the deployment of publicly-accessible electric vehicle charging infrastructure, hydrogen fueling infrastructure, propane fueling infrastructure, and natural gas fueling infrastructure along designated alternative fuel corridors;
- establishes the Healthy Streets grant program;
- provides for bicycle transportation and pedestrian walkways;
- designates additional routes within the Central Texas Corridor as high priority corridors within the National Highway System; and
- requires DOT to provide grants to eliminate or control invasive plants and carry out pollinator-friendly practices on roadsides and highway rights-of-way, including the planting and seeding of native, locally appropriate grasses and wildflowers.

TITLE II--TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION

This title reauthorizes through FY2026 the state infrastructure bank program and revises the TIFIA program. Under the existing TIFIA program, DOT provides loans with low interest rates and loan guarantees with low repayment terms to borrowers to undertake certain transportation infrastructure programs. This title revises program requirements, including by expanding eligibility to airport-related projects, requiring DOT to establish a process to expedite certain loans, and setting forth provisions to increase transparency in the review process for projects seeking TIFIA funding.

TITLE III--RESEARCH, TECHNOLOGY, AND EDUCATION

This title requires DOT to revise its workforce education program and establish certain research and technology programs. Among other requirements, DOT must

- establish a program to test the feasibility of a road usage fee and other user-based alternative revenue mechanisms to help maintain the long-term solvency of the Highway Trust Fund;
- establish pilot programs to demonstrate a national motor vehicle per-mile user fee, facilitate the integration of data about weather conditions, road conditions, and information from emergency responders, conduct emerging technology research, including advanced and additive manufacturing technologies, and improve transportation planning;
- establish animal detection systems that reduce the number of wildlife-vehicle collisions; and
- designate 10 regional Centers of Excellence for Resilience and Adaptation and a national Center of Excellence for Resilience and Adaptation to promote the resilience of surface transportation infrastructure from natural disasters, extreme weather, and the effects of climate change.

TITLE IV--INDIAN AFFAIRS

This title provides for

- expedited and efficient environmental reviews for tribal transportation safety projects,
- use of tribal transportation funds to carry out bridge replacements,
- authorization of appropriations to the Bureau of Indian Affairs through FY2026 to carry out its road maintenance program,
- a study of the long-term viability and useful life of existing roads on Indian land,
- a periodic status report on progress in addressing the deferred maintenance needs of roads on Indian land,
- the development of best practices for compiling motor vehicle crash data and development of a standard crash report form,
- the establishment of an Office of Tribal Government Affairs and Assistant Secretary for Tribal Government Affairs within DOT.

DIVISION B--SURFACE TRANSPORTATION INVESTMENT ACT OF 2021

Surface Transportation Investment Act of 2021

TITLE I--MULTIMODAL AND FREIGHT TRANSPORTATION

This title establishes and expands provisions related to the national multimodal freight policy and components of the national freight system.

Among other provisions, the title

- establishes an Office of Multimodal Freight Infrastructure and Policy within the Department of Transportation (DOT);
- expands the National Freight Strategic Plan to include best practices for reducing environmental impacts of freight movement, strategies to increase the resilience of the freight system, and consideration of potential impacts of the freight system on rural and historically disadvantaged communities;
- authorizes funding for a National Culvert Removal, Replacement, and Restoration grant program to address anadromous fish passage;
- directs DOT to establish a pilot program within the Build America Bureau to provide financial, technical, and legal assistance to help rural and tribal communities with development phase activities when evaluating potential transportation projects;
- provides statutory authority for the Railroad Rehabilitation and Improvement Financing (RRIF) loan program and makes modifications to the program; and
- requires DOT to periodically submit a report to Congress that identifies the number of applicants that sought a RRIF loan for a transit-oriented development project, the number of loans provided to such applicants, and the reasons for providing or declining to provide requested loans.

TITLE II--RAIL

Passenger Rail Expansion and Rail Safety Act of 2021

This title addresses various passenger rail-related issues, including Amtrak, intercity passenger rail policy, and rail safety.

Among other provisions, the title

- authorizes through FY2026 grants to support Amtrak's intercity passenger rail service on the Northeast Corridor and the National Network;
- requires Amtrak to ensure at least one Amtrak ticket agent is employed at each station building that averages at least 40 passengers per day;
- directs a working group to provide recommendations to improve Amtrak's onboard food and beverage service;
- prohibits smoking, including the use of electronic cigarettes, on all Amtrak trains;
- modifies provisions related to the Northeast Corridor Commission, including to require the commission to submit a service development plan that identifies key state-of-good repair flexibility and resources for states to address grade crossing safety issues;
- directs the Federal Railroad Administration to establish a three-year blocked crossing portal to receive, store, and retrieve information regarding blocked highway-rail grade crossings; and
- directs DOT to seek to enter into an agreement with the National Academies to conduct a study and issue a report on the safety impacts of freight trains longer than 7,500 feet.

TITLE III--MOTOR CARRIER SAFETY

This title addresses provisions related to the Federal Motor Carrier Safety Administration (FMCSA) and its related programs covering commercial drivers and vehicles.

Among other provisions, the title

- reauthorizes through FY2026 the use of the Highway Trust Fund to pay the administrative expenses of the FMCSA and provide financial assistance for various programs, including to carry out the motor carrier safety assistance program, the commercial motor vehicle enforcement training and support grant program, and the commercial motor vehicle operators grant program;
- revises the high priority program to include projects that address human trafficking in a commercial motor vehicle or by any driver or passenger;
- directs DOT to establish an immobilization grant program to provide discretionary grants to states for the immobilization or impoundment of passenger-carrying commercial motor vehicles that are determined to be unsafe or fail inspection;
- establishes a grant program to provide discretionary grants for nonprofit organizations to provide training to non-federal employees who conduct commercial motor vehicle enforcement activities;
- requires the FMCSA to establish and facilitate a Women of Trucking Advisory Board to promote organizations and programs that provide education, training, mentorship, or outreach to women in the trucking industry and recruit, retain, or advance women into the trucking industry;
- requires DOT to prescribe a motor vehicle safety standard and accompanying performance requirements for automatic emergency braking systems for heavy-duty commercial motor vehicles; and
- directs DOT to promulgate regulations to implement an apprenticeship program for licensed commercial motor vehicle drivers under the age of 21.

TITLE IV--HIGHWAY AND MOTOR VEHICLE SAFETY

This title addresses provisions related to highway safety, highway safety research and development, high-visibility enforcement, national priority safety, and vehicle safety programs of DOT.

Among other provisions, the title

- authorizes through FY2026 DOT programs related to highway safety, highway safety research and development, high-visibility enforcement, and national priority safety programs;
- directs DOT to carry out an education campaign to reduce the incidence of vehicular heatstroke of children left in passenger motor vehicles and establish a program to provide grants to states for use in developing and implementing processes for informing each owner and lessee of a motor vehicle of open recalls during vehicle registration;
- requires DOT to conduct three high-visibility traffic safety law enforcement campaigns in each of fiscal years 2022 through 2026;
- revises national priority safety programs of DOT, including programs that address distracted and impaired driving;
- establishes the Motorcyclist Advisory Council to advise DOT on motorcycle safety issues, including road design and maintenance, barrier design, and use of intelligent transportation systems;
- authorizes through FY2026 National Highway Traffic Safety Administration motor vehicle safety programs and activities;
- requires motor vehicle manufacturers to report to DOT information on recall campaigns, including the number of affected vehicles and the number of repaired vehicles; and
- directs DOT to implement rules to establish minimum performance standards with respect to crash avoidance technology and to require on all new motor vehicles forward collision warning and automatic emergency braking systems, and lane departure and lane keeping assist systems.

TITLE V--RESEARCH AND INNOVATION

This title addresses provisions related to research and innovation programs of DOT and other federal agencies.

Among other provisions, the title

- requires DOT to create a website that includes a compilation of resources for states and local communities to use in developing and implementing intelligent transportation system programs or smart community transportation programs;
- directs DOT to establish the Strengthening Mobility and Revolutionizing Transportation Grant Program to support demonstration projects on smart technologies that improve transportation efficiency and safety, including autonomous vehicles and smart grids to support electric vehicles;
- establishes the Advanced Research Projects Agency-Infrastructure within DOT to fund research and development on advanced transportation infrastructure technologies;
- directs DOT to establish an advanced transportation research pilot program for universities, nonprofit organizations, and other entities to submit unsolicited research proposals to DOT;
- requires DOT to implement a strategy to use infrastructure investments to support the travel and tourism industry during the COVID-19 pandemic;
- addresses the barriers states face in submitting alcohol and drug toxicology results to the Fatality Analysis Reporting System, which provides nationwide data on fatal injuries related to motor vehicle crashes;
- requires DOT to report on methods to improve access to marijuana products for scientific research on marijuana-impaired driving and to make recommendations on how to address any federal barriers to conducting research on marijuana-impaired driving; and
- directs the Government Accountability Office (GAO) to study the potential societal benefits of improving the efficiency of traffic systems.

TITLE VI--HAZARDOUS MATERIALS

This title reauthorizes through FY2026 the hazardous materials emergency preparedness program and other safety programs of DOT.

The title also directs DOT to establish a grant program to develop a hazardous materials response training curriculum for emergency responders and to make such training available in an electronic format.

Additionally, the title revises requirements for Class I railroads that transport hazardous materials to share real-time emergency response information by providing certain information to appropriate state and local officials, including the quantity of hazardous materials.

TITLE VII--GENERAL PROVISIONS

This title addresses various provisions related to DOT, including performance standards, forced labor, the electromagnetic spectrum, and travel and tourism activities.

Specifically, the title

- authorizes DOT to develop metrics and establish performance standards that use such metrics to assess the effectiveness of grants awarded under the bill;
- requires DOT to ensure that no illegal products or materials produced with forced labor are procured with funding under the bill;
- directs DOT and the National Telecommunications and Information Administration to audit the electromagnetic spectrum assigned to DOT, the purposes for which the assigned spectrum is used, and the portions of spectrum being shared with other users; and
- requires DOT to study and report on travel and tourism activities within DOT and how it evaluates travel and tourism needs in reviewing applications for grant programs.

TITLE VIII-SPORT FISH RESTORATION AND RECREATIONAL BOATING SAFETY

This title reauthorizes through FY2026 the Sport Fish Restoration and Boating Trust Fund which provides funding for several programs, including coastal wetlands, water and boating infrastructure, and recreational boating safety.

It also requires an amount to be set-aside each fiscal year through FY2026 for administration of the National Recreational Boating Safety Program and the Wildlife Restoration Fund.

The title also requires the GAO to report on (1) the increasing use of nonmotorized vessels and their impacts on motorized and nonmotorized vessel access, (2) user conflicts at waterway access points, (3) the use of Sport Fish Restoration Program funds to improve nonmotorized vessel access and the reasons for providing such access, and (4) the use of Recreational Boating Safety Program funds for nonmotorized boating safety programs.

DIVISION C--TRANSIT

This division revises provisions related to various public transportation programs, including the fixed guideway capital investment grant program, the public transportation innovation grant program, and the low or no emissions grant program for buses and bus facilities.

Among other provisions, the division

- revises requirements for metropolitan planning organizations (MPOs), including by allowing MPOs to elect to expand considerations of housing planning processes into the metropolitan transportation planning process;
- revises requirements for the fixed guideway capital investment grant program;
- revises the rural area formula grant program by establishing fixed percentages for the Public Transportation on Indian Reservations and the Appalachian Development Public Transportation Assistance programs;
- updates reporting requirements for DOT's annual report on research activities under the public transportation innovation grant program;
- adds geographic service area coverage as a reporting requirement to the National Transit Database;
- establishes a new competitive grant program to assist state and local governments in financing capital projects for the replacement of rail rolling stock;
- reauthorizes through FY2026 funding from the Mass Transit Account of the Highway Trust Fund for programs related to public transportation;
- modifies the low or no emissions grant program for buses and bus facilities, including by increasing the minimum allotment of grant funds for states and territories; and
- reauthorizes through FY2030 capital and preventive maintenance grants to the Washington Metropolitan Transit Authority.

DIVISION D--ENERGY

TITLE I--GRID INFRASTRUCTURE AND RESILIENCY

This title establishes a variety of requirements and incentives to support energy infrastructure and cybersecurity for the energy sector, including requirements and incentives to

- make the electric grid more reliable, resilient, flexible, and secure;
- facilitate the construction of or updates to electric power transmission lines and related facilities;
- create state energy security plans;
- reauthorize through FY2026 and revise the State Energy Program;
- establish a demonstration project for second-life applications of electric vehicle batteries as aggregated energy storage installations that provide services to the electric grid;
- replace the Federal Columbia River Power System;
- revise and upgrade the power management of the dams in the Columbia River Basin located in the Western United States and Canada; and
- develop cybersecurity applications and technologies in the energy sector.

TITLE II--SUPPLY CHAINS FOR CLEAN ENERGY TECHNOLOGIES

This title sets forth incentives and requirements to ensure a supply chain for clean energy technologies, such as supply chains for critical minerals (e.g., rare earth minerals) and battery materials. For example, the title provides support for programs that

- identify, produce, recycle, and reuse critical minerals;
- address the supply chain for lithium-ion batteries that are used in items such as electric cars, including efforts to recycle and reuse batteries; and
- enable manufacturers to build facilities to produce or recycle advanced energy products in communities where coal mines or coal power plants have closed.

TITLE III--FUELS AND TECHNOLOGY INFRASTRUCTURE INVESTMENTS

This title reauthorizes, expands, and establishes programs that support

- infrastructure or technology for capturing, utilizing, storing, transporting, or removing carbon dioxide;
- efforts to research, develop, or recycle hydrogen from clean energy sources;
- nuclear energy infrastructure, including planning for micro-reactors and small-modular reactors;
- hydroelectric power infrastructure, hydroelectric efficiency improvements, or hydroelectric power storage; or
- other clean energy (e.g., solar) programs.

TITLE IV--ENABLING ENERGY INFRASTRUCTURE INVESTMENT AND DATA COLLECTION

This title revises various loan programs of the Department of Energy (DOE) and expands DOE data collection requirements. For example, the title expands the eligibility criteria for the Advanced Technology Vehicle Manufacturing Loan Program. It also directs DOE to collect information on the bulk power system, energy consumption, demand for minerals, and other issues.

TITLE V--ENERGY EFFICIENCY AND BUILDING INFRASTRUCTURE

This title establishes requirements and incentives related to increasing energy efficiency in homes, commercial buildings, manufacturing facilities, public schools, nonprofit buildings, and federal buildings.

TITLE VI--METHANE REDUCTION INFRASTRUCTURE

This title reauthorizes through FY2022 and revises programs to plug, remediate, and reclaim orphaned (e.g., abandoned) oil or gas wells located on federal, state, or tribal lands.

TITLE VII--ABANDONED MINE LAND RECLAMATION

This title reduces the fee certain coal mining operations must pay to the Abandoned Mine Reclamation Fund, reauthorizes such fee through FY2034, revises provisions regarding the fund and mine reclamation, and establishes a program to reclaim hard rock mine land.

Under the existing Abandoned Mine Land Reclamation Program, the Office of Surface Mining, Reclamation and Enforcement collects a fee from coal mining companies for each ton of coal produced. The fees are deposited into the fund, which may be used to address hazards to public health, safety, and the environment from coal mining sites that were abandoned or unreclaimed as of August 3, 1977.

In addition, this title also requires the Department of the Interior to establish a program to inventory, assess, decommission, reclaim, respond to hazardous substance releases on, and remediate abandoned hard rock mine land.

TITLE VIII--NATURAL RESOURCES-RELATED INFRASTRUCTURE, WILDFIRE MANAGEMENT, AND ECOSYSTEM RESTORATION

This title reauthorizes through FY2026 and revises the Forest Roads and Trails Act and authorizes programs related to wildlife and natural resources, including by authorizing (1) the Forest Service Legacy Road and Trail Remediation Program, (2) a program to reduce the risk of wildfire, and (3) a voluntary program to restore ecosystems.

TITLE IX--WESTERN WATER INFRASTRUCTURE

This title revises requirements regarding western water infrastructure and authorizes through FY2026 projects of the Bureau of Reclamation projects concerning such infrastructure, such as projects for

- water storage,
- groundwater recharge,
- water recycling and reuse
- desalination projects,
- rural water projects,
- dam safety projects,
- drought contingency plans,
- critical maintenance and repair,
- water efficiency, and
- specified aquatic ecosystem restoration and protection.

TITLE X--AUTHORIZATION OF APPROPRIATIONS FOR ENERGY ACT OF 2020

This title authorizes a variety of projects and programs established under the Energy Act of 2020 concerning energy storage, advanced reactors, mineral security, carbon capture, water power, and renewable energy.

TITLE XI--WAGE RATE REQUIREMENTS

This title requires projects that receive funding under this division to pay all laborers and mechanics locally prevailing wages.

TITLE XII--MISCELLANEOUS

This title requires DOE to establish a program to oversee demonstration projects authorized under this division or the Energy Act of 2020. In addition, the title extends the Secure Rural Schools and Community Self-Determination Act of 2000.

DIVISION E--DRINKING WATER AND WASTEWATER INFRASTRUCTURE

Drinking Water and Wastewater Infrastructure Act of 2021

TITLE I--DRINKING WATER

This title authorizes a variety of programs within the Environmental Protection Agency (EPA) that support drinking water infrastructure.

Specifically, the title reauthorizes through FY2026 and revises the drinking water state revolving fund program, which provides financial assistance to states and water systems for infrastructure projects. In addition, it reauthorizes through FY2026 existing programs and establishes new programs to support drinking water infrastructure, including programs that

- address emergencies (e.g., cybersecurity events) affecting drinking water systems;
- protect sources of water (e.g., rivers, lakes, and groundwater);
- assist the public water systems of small and disadvantaged communities;
- assist low-income households located in rural areas to maintain access to drinking water and wastewater treatment;
- reduce lead contamination in drinking water; and
- support drinking water and sanitation projects on Indian reservations.

TITLE II--CLEAN WATER

This title authorizes a variety of programs within the EPA that support clean water infrastructure.

Specifically, the title reauthorizes through FY2026 and revises (1) the Water Infrastructure Finance and Innovation Act of 2014; and (2) the clean water state revolving fund program, which provides financial assistance to states and communities for sewage and wastewater infrastructure projects. In addition, it reauthorizes through FY2026 existing programs and establishes new programs that support water infrastructure, including programs designed to

- assist publicly owned treatment works (i.e., sewage and wastewater treatment plants commonly known as POTWs) convert waste in water to energy;
- plan and construct POTWs to address municipal combined sewer overflows, sanitary sewer overflows, or stormwater;
- increase the resilience of POTWs to natural hazards or cybersecurity vulnerabilities;
- assist small and medium POTWs;
- construct, repair, or replace decentralized wastewater systems for households with low or moderate incomes;
- assist qualified households with low or moderate incomes connect to POTWs;
- provide alternative sources of water to meet critical water supply needs; or
- develop and construct public water systems and wastewater systems for rural and Native villages in Alaska.

DIVISION F--BROADBAND

TITLE I--BROADBAND GRANTS FOR STATES, DISTRICT OF COLUMBIA, PUERTO RICO, AND TERRITORIES

This title establishes measures to promote broadband deployment in unserved and underserved areas through specified projects (e.g., connecting libraries and other community anchor institutions, collecting data and conducting broadband mapping, and installing internet infrastructure).

Specifically, the title establishes the Broadband Equity, Access, and Deployment Program to award grants to carry out the purposes of this title. Further, it requires broadband providers to deliver information to the Federal Communications Commission (FCC) to facilitate the creation and maintenance of broadband maps.

The FCC must establish an online mapping tool to provide a geographic footprint of each federally funded broadband infrastructure deployment project.

TITLE II--TRIBAL CONNECTIVITY TECHNICAL AMENDMENTS

This title modifies the Tribal Broadband Connectivity Program, through which the National Telecommunications and Information Administration (NTIA) makes grants to expand access to and adoption of broadband service on tribal land for remote learning, telework, or telehealth resources.

Specifically, the title extends the deadline for a grant recipient to (1) commit grant funds to a specific use, and (2) expend the grant funds. The title also authorizes a grant recipient to use grant funds to cover up to 2.5% of the total project cost for planning, feasibility, and sustainability studies.

If Congress appropriates additional funds for these grants after the enactment of this bill, the NTIA (1) may use a portion of the funds to fully fund grants that were not fully funded initially, and (2) shall allocate any remaining funds through subsequent funding rounds.

TITLE III--DIGITAL EQUITY ACT OF 2021

Digital Equity Act of 2021

This title requires the NTIA to establish grant programs for promoting digital equity, supporting digital inclusion activities, and building capacity for state-led efforts to increase adoption of broadband by their residents.

Specifically, the title establishes the State Digital Equity Capacity Grant Program to make distributions to states based on their populations, demographics, and availability and adoption of broadband. The title also establishes the Digital Equity Competitive Grant Program for supporting efforts to achieve digital equity, promote digital inclusion, and stimulate adoption of broadband.

TITLE IV--ENABLING MIDDLE MILE BROADBAND INFRASTRUCTURE

This title requires the NTIA to make grants to eligible entities for the construction, improvement, or acquisition of middle mile infrastructure (i.e., the midsection of the infrastructure required to enable internet connectivity for end users but which does not connect directly to an end-user location). Entities eligible to receive such grants include states, tribal governments, telecommunications companies, various nonprofit entities, and economic development authorities.

TITLE V--BROADBAND AFFORDABILITY

This title revises and makes permanent the Affordable Connectivity Benefit Program (formerly, the Emergency Broadband Benefit Program) established to reimburse broadband providers for costs associated with discounting broadband service for certain households during the COVID-19 emergency period.

Participating providers must allow recipient households to apply the affordable connectivity benefit to any of its internet service offerings and may not require the households to submit to a credit check in order to apply the benefit. Such providers must also carry out public awareness campaigns in service areas to highlight the existence of the program and the value and benefits of broadband.

The FCC must promulgate regulations to require the display of broadband consumer labels to disclose to consumers specified information regarding broadband internet plans, including information regarding whether the offered price is an introductory rate.

Further, the FCC must adopt final rules to facilitate equal access to broadband, which must include (1) preventing digital discrimination of access based on factors such as income level, race, or religion; and (2) identifying necessary steps for the FCC to eliminate such discrimination.

The Government Accountability Office (GAO) must evaluate and report on the process used by the FCC for establishing, reviewing, and updating the upload and download speed thresholds for broadband service.

TITLE VI--TELECOMMUNICATIONS INDUSTRY WORKFORCE

Telecommunications Skilled Workforce Act

This title establishes measures to address the workforce needs of the telecommunications industry.

Specifically, the title requires the FCC to establish an interagency working group to develop recommendations for addressing these workforce needs, including the safety of that workforce.

The FCC must also establish and issue guidance for states on matters related to workforce needs and safety of the telecommunications industry, including how a state workforce development board can (1) utilize federal resources available to meet relevant workforce needs; (2) promote and improve recruitment in the Telecommunications Industry Registered Apprenticeship Program and other qualified industry-led workforce development programs; and (3) ensure the safety of tower climbers and other members of the telecommunications workforce.

The GAO must submit to Congress a report that estimates the number of skilled telecommunications workers that will be required to build and maintain (1) broadband infrastructure in rural areas, and (2) the infrastructure needed to support 5G wireless technology.

DIVISION G--OTHER AUTHORIZATIONS

TITLE I--INDIAN WATER RIGHTS SETTLEMENT COMPLETION FUND

This title establishes in the Treasury an Indian Water Rights Settlement Completion Fund. Amounts deposited in the fund shall be used by the Department of the Interior for transfers to accounts authorized to receive discretionary appropriations, or to satisfy other obligations identified by Interior, under an approved Indian water settlement.

TITLE II--WILDFIRE MITIGATION

Wildland Fire Mitigation and Management Commission Act of 2021

This title directs Interior, the Department of Agriculture (USDA), and the Federal Emergency Management Agency (FEMA) to jointly establish a temporary commission to study and make recommendations to improve federal policies relating to wildland fires in the United States, including rehabilitating land devastated by wildland fires.

The commission shall terminate 180 days after it submits two reports to Congress (1) recommendations to prevent, mitigate, suppress, and manage wildland fires; and (2) a strategy to meet aerial firefighting equipment needs that may be used for wildland firefighting purposes through 2030 in the most cost-effective manner.

TITLE III--REFORESTATION

Repairing Existing Public Land by Adding Necessary Trees Act or the REPLANT Act

This title directs USDA to annually transmit to Congress for each of the 10 years after enactment of this title an estimate of appropriations necessary to replant and otherwise treat (1) forested land intended to be cut over that year, and (2) a sufficient portion of the backlog of lands that need treatment to eliminate the backlog within the 10-year period.

After such 10-year period, USDA shall transmit annually to Congress an estimate of the sums necessary to replant and otherwise treat all lands being cut over and maintain planned timber production on all other forested lands in the National Forest System to prevent the development of a backlog of needed work larger than the needed work at the beginning of the fiscal year.

Each reforestation activity included in a renewable resource assessment shall be carried out in accordance with applicable Forest Service management practices and definitions, including definitions relating to silvicultural practices and forest management.

The Forest Service shall, based on recommendations from regional foresters, create a priority list of reforestation projects that primarily take place on priority land and promote effective reforestation following unplanned events. The list may include activities to ensure adequate and appropriate seed availability.

USDA shall give priority to projects on the list.

TITLE IV--RECYCLING PRACTICES

This title provides support for recycling programs.

Specifically, the Environmental Protection Agency (EPA) must develop best practices for states, tribal, and local governments with respect to the collection of batteries to be recycled in a manner that (1) is technically and economically feasible; (2) is environmentally sound and safe for waste management workers; and (3) optimizes the value and use of material derived from recycling of batteries.

The title also requires the EPA to establish a program to award grants to improve the effectiveness of residential and community recycling programs through public education and outreach.

In addition, the EPA must develop a model recycling program toolkit for states, Native American tribes, and local governments.

Finally, the title specifies that the EPA's review of its federal procurement guidelines for purchasing certain recycled materials and items made with such materials must occur at least once every five years.

TITLE V--BIOPRODUCT PILOT PROGRAM

This title directs USDA to carry out a pilot program to partner with not less than one qualified institution to study the benefits of using materials derived from certain agricultural commodities in the production of construction and consumer products, including greenhouse gas emission reductions and other environmental benefits relative to commonly used alternative materials.

TITLE VI--CYBERSECURITY

Cyber Response and Recovery Act

This title authorizes the Department of Homeland Security (DHS) to declare a significant incident in the event of a breach of a public or private network and establishes a Cyber Response and Recovery Fund.

Specifically, DHS may make the declaration upon determining that a specific significant incident has occurred or is likely to occur imminently and that otherwise available resources, other than the fund, are likely insufficient to respond to or mitigate the incident effectively.

Upon a declaration, the Cybersecurity and Infrastructure Security Agency must coordinate the response activities of (1) each federal agency; (2) local governments, law enforcement agencies, and other responding entities; and (3) federal, state, local, and tribal emergency management and response agencies.

The fund shall be available for the coordination of such activities and for response and recovery support.

State and Local Cybersecurity Improvement Act

Additionally, the title establishes the State and Local Cybersecurity Grant Program to address cybersecurity risks and threats to the information systems of state, local, or tribal governments.

TITLE VII--PUBLIC-PRIVATE PARTNERSHIPS

This title requires entities carrying out certain transportation projects to conduct a value-for-money analysis or comparable analysis of the project during the planning and project development process and prior to signing any Project Development Agreement.

For each project the entity carrying out the project must include the results of the analysis on the website of the project and submit the results of the analysis to the Build America Bureau and the Department of Transportation (DOT).

DOT must issue guidance on performance benchmarks, risk premiums, and expected rates of return on private financing for such projects.

TITLE VIII--FEDERAL PERMITTING IMPROVEMENT

This title revises the program responsible for federal coordination and review of major infrastructure projects, including by making this program permanent and by expanding the types of projects eligible for the program.

TITLE IX--BUILD AMERICA, BUY AMERICA

Build America, Buy America Act

This title requires federal infrastructure programs to provide for the use of materials produced in the United States.

For example each federal agency must submit to the Office of Management and Budget (OMB) and to Congress a report that identifies each federal financial assistance program for infrastructure administered by the agency and (1) identify domestic content procurement preferences applicable to the assistance, (2) assess the applicability of such requirements, (3) provide details on any applicable domestic content procurement preference requirement, and (4) include a description of the type of infrastructure projects that receive funding under the program.

Additionally, each agency shall ensure that none of the funds made available for such a program are used for a project unless all of the iron, steel, and manufactured products used in the project are produced in the United States. Agencies may waive these requirements where inconsistent with the public interest, where not produced in sufficient quantities or satisfactory quality, or where such inclusion will increase the cost of the project by more than 25%.

The title also directs the Office for Federal Procurement Policy in the OMB to promulgate final regulations or other policy guidance to standardize and simplify how federal agencies comply with, report on, and enforce the Buy American Act.

Further, the title directs specified federal agencies to take steps to increase transparency and limit the use of waivers of Buy American laws. Generally, Buy American laws require agencies to procure domestic goods.

The title requires (1) the Department of Commerce, the Office of the U.S. Trade Representative, and the OMB to assess the impacts of all U.S. free trade agreements, the World Trade Organization Agreement on Government Procurement, and federal permitting processes on the operation of Buy American laws; and (2) the General Services Administration (GSA) to establish a free, publicly available *BuyAmerican.gov* website. Public interest waivers from Buy American laws shall be construed to ensure the maximum utilization of goods, products, and materials produced in the United States.

The GSA shall develop a mechanism to collect information on requests to invoke a Buy American waiver for a federal contract.

Make PPE in America Act

The title also requires procurement contracts for personal protective equipment (PPE) to be long-term and for domestically manufactured.

Contracts entered into by the Departments of Homeland Security, Health and Human Services, Defense, Education, or Veterans Affairs for the procurement of PPE must be for a duration of at least two years, including all option periods, to incentivize investment in the production of PPE, and materials and components of PPE, in the United States.

The title provides exceptions (1) where a non availability determination has been made, or (2) where a sufficient quantity of a satisfactory quality cannot be procured as and when needed at U.S. market prices. The departments must certify every 120 days that an exception is necessary to procure PPE to meet the immediate needs of a public health emergency.

Such departments may transfer to the Strategic National Stockpile any excess PPE acquired under a contract.

TITLE X--ASSET CONCESSIONS

This title directs the Department of Transportation (DOT) to establish a grant program to provide technical assistance and other resources to state and local transportation agencies that are interested in engaging the private sector in public-private partnerships, asset concessions, and other innovative financing.

TITLE XI--CLEAN SCHOOL BUSES AND FERRIES

This title establishes and expands programs related to clean school buses and ferries.

Specifically, the title

- revises the Clean School Bus Program, under which the Environmental Protection Agency must provide financial assistance to replace existing school buses with clean or zero-emission school buses that do not emit specified pollutants, including greenhouse gases;
- directs DOT to establish a pilot program to provide grants to purchase electric or low-emitting (e.g., methanol, natural gas, hydrogen) ferries and reduce emissions from existing ferries, including through electrification;
- requires DOT to establish a program to ensure that basic essential ferry service is provided to rural areas by providing funds to states to provide such service; and
- expands the funding authority for renovating, constructing, and expanding certain urban Indian health care facilities.

DIVISION H--REVENUE PROVISIONS

TITLE I--HIGHWAY TRUST FUND

This title extends several highway-related authorizations and tax provisions, including

- the expenditure authority for the Highway Trust Fund through FY2026, the Sport Fish Restoration and Boating Trust Fund, and the Leaking Underground Storage Tank Trust Fund;
- excise taxes on certain fuels for funding highway projects through FY2028;
- excise taxes on certain taxable chemicals through 2031; and
- custom user fees through FY2031.

The title makes additional transfers from the general fund of the Treasury to the Highway Trust Fund.

TITLE IV--BOND PROVISIONS

This title adds broadband as an allowable use for private activity bonds and allows carbon capture and direct air capture technologies to be eligible for private activity bond financing.

The title increases the current cap on tax-exempt highway or surface freight transfer facility bonds to \$30 billion.

TITLE V--RELIEF FOR TAXPAYERS AFFECTED BY DISASTERS OR OTHER CRITICAL EVENTS

This title modifies requirements relating to the authority of the the Department of the Treasury to allow extensions of tax filing deadlines when there is either a federally-declared disaster or a terroristic or military action. It also extends such authority by reason of significant fires.

The title also expands the authority to postpone the time for filing of Tax Court petitions to include all petitions, not just deficiency petitions or for erroneous refunds.

TITLE VI--OTHER PROVISIONS

This title revises requirements for the tax exclusion for contributions to the capital of a corporation. Specifically, it allows an exclusion for certain amounts received by a regulated public utility that provides water or sewerage disposal services.

The title provides for the extension of tax rules for stabilizing interest rates on contribution amounts to defined benefit pension plans.

The title modifies reporting requirements and definitions relating to brokers and digital assets for returns and information statements required after 2023.

This provision provides for the termination of the employee retention tax credit after FY2021, except for start-up businesses which terminate on December 31, 2021.

DIVISION I--OTHER MATTERS

This division addresses a wide range of policy areas such as energy, health care, and telecommunications. It includes provisions that

- extend the sequester (i.e., automatic spending reductions) for direct spending through FY2031 and adjust the reductions required for Medicare;
- authorize the Department of Energy to draw down and sell a portion of the oil from the Strategic Petroleum Reserve;
- set forth congressional findings regarding savings from unused unemployment insurance funds;
- require manufacturers of certain single-dose container or single-use package drugs covered under Medicare Part B to provide refunds for discarded amounts of the drugs;
- extend the authority for enterprise guarantee fees, which are fees that Fannie Mae and Freddie Mac charge for loans included in mortgage-backed securities;
- delay the implementation of a Department of Health and Human Services rule that affects the treatment of certain prescription drug rebates under the federal anti-kickback statute;
- rescind specified unobligated funds that were provided to address COVID-19 and expand the purposes for which certain COVID-19 funds may be used; and
- extend the authority of the Federal Communications Commission (FCC) to conduct spectrum auctions and require the FCC to conduct certain auctions.

DIVISION J--APPROPRIATIONS

This division provides appropriations for FY2022 for the departments and agencies included in this division.

Infrastructure Investments and Jobs Appropriations Act

TITLE I--AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES

This title provides appropriations to the Department of Agriculture for the Natural Resources Conservation Service (NRCS) and the Rural Utilities Service (RUS).

Specifically, the title provides appropriations to the NRCS for

- Watershed and Flood Prevention Operations,
- the Watershed Rehabilitation Program, and
- the Emergency Watershed Protection Program.

The title provides appropriations to the RUS for the Distance Learning, Telemedicine, and the Broadband Program.

In addition, the title provides appropriations to implement a pilot program to study the benefits of using agricultural commodities in the production of construction and consumer products.

TITLE II--COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES

This title provides appropriations to the National Telecommunications and Information Administration for

- the Broadband Equity, Access, and Deployment Program;
- the Broadband Connectivity Fund;
- Digital Equity; and
- Middle Mile Deployment.

It also provides appropriations to the National Oceanic and Atmospheric Administration for

- Operations, Research, and Facilities;
- Procurement, Acquisition, and Construction; and
- Pacific Coastal Salmon Recovery.

TITLE III--ENERGY AND WATER DEVELOPMENT AND RELATED AGENCIES

This title provides appropriations for the U.S. Army Corps of Engineers, the Bureau of Reclamation, the Department of Energy (DOE), and several independent agencies.

Specifically, the title provides appropriations for U.S. Army Corps of Engineers civil works projects, including for

- Investigations,
- Construction,
- Mississippi River and Tributaries,
- Operation and Maintenance,
- the Regulatory Program,
- Flood Control and Coastal Emergencies,
- Expenses, and
- the Water Infrastructure Finance and Innovation Program.

The title provides appropriations to the Department of the Interior for the Central Utah Project and the Bureau of Reclamation.

Within DOE, the title provides appropriations for

- Energy Efficiency and Renewable Energy;
- Cybersecurity, Energy Security, and Emergency Response;
- Electricity;
- Nuclear Energy;
- Fossil Energy and Carbon Management;
- the Carbon Dioxide Transportation Infrastructure Finance and Innovation Program;
- the Office of Clean Energy Demonstrations; and
- the Western Area Power Administration.

The title also provides appropriations for several independent agencies, including:

- the Appalachian Regional Commission,
- the Delta Regional Authority,
- the Denali Commission,
- the Northern Border Regional Commission,
- the Southeast Crescent Regional Commission, and
- the Southwest Border Regional Commission.

TITLE IV--FINANCIAL SERVICES AND GENERAL GOVERNMENT

This title provides appropriations for

- the Office of the National Cyber Director,
- the Federal Communications Commission's Affordable Connectivity Fund, and
- the Environmental Review Improvement Fund.

It also provides appropriations to the General Services Administration for construction and acquisition, repairs, and alterations of border stations and land ports of entry.

TITLE V--DEPARTMENT OF HOMELAND SECURITY

This title provides appropriations to the Department of Homeland Security for

- U.S. Customs and Border Protection,
- the U.S. Coast Guard,

- the Cybersecurity and Infrastructure Security Agency,
- the Federal Emergency Management Agency (FEMA), and
- the Science and Technology Directorate.

TITLE VI--DEPARTMENT OF THE INTERIOR, ENVIRONMENT, AND RELATED AGENCIES

This title provides appropriations to the Department of the Interior for

- the U.S. Fish and Wildlife Service,
- the U.S. Geological Survey,
- the Office of Surface Mining Reclamation and Enforcement,
- the Bureau of Indian Affairs,
- Departmental Offices,
- Wildland Fire Management, and
- an Energy Community Revitalization Program.

The title provides appropriations to the Environmental Protection Agency for

- Environmental Programs and Management,
- Hazardous Substance Superfund, and
- State and Tribal Assistance Grants.

In addition, the title provides appropriations to the Forest Service for

- Forest and Rangeland Research,
- State and Private Forestry,
- the National Forest System,
- Capital Improvement and Maintenance, and
- Wildland Fire Management.

Within the Department of Health and Human Services (HHS), the title provides appropriations for the Indian Health Service.

TITLE VII--LABOR, HEALTH AND HUMAN SERVICES, AND EDUCATION, AND RELATED AGENCIES

This title provides appropriations to HHS for the Low Income Home Energy Assistance Program.

TITLE VIII--TRANSPORTATION, HOUSING AND URBAN DEVELOPMENT, AND RELATED AGENCIES

This title provides appropriations to the Department of Transportation for

- the Office of the Secretary,
- the Federal Aviation Administration,
- the Federal Highway Administration,
- the Federal Motor Carrier Safety Administration,
- the National Highway Traffic Safety Administration,
- the Federal Railroad Administration,
- the Federal Transit Administration,
- the Maritime Administration, and
- the Pipeline and Hazardous Materials Safety Administration.

TITLE IX--GENERAL PROVISIONS--THIS DIVISION

This title exempts the budgetary effects of specified provisions of this bill from (1) the Statutory Pay-As-You-Go Act of 2010 (PAYGO), (2) the Senate PAYGO rule, and (3) certain budget score keeping rules.

DIVISION K--MINORITY BUSINESS DEVELOPMENT

Minority Business Development Act of 2021

This division provides statutory authority for the Minority Business Development Agency (MBDA) and establishes the Office of Business Centers within the MBDA. The MBDA works to facilitate the growth and global competitiveness of minority business enterprises.

TITLE I--EXISTING INITIATIVES

This title provides statutory authority for market development, research, and information gathering initiatives in collaboration with public and private sector entities to assist and promote minority businesses in domestic and foreign markets.

The title also provides statutory authority for the MBDA Business Center Program, which establishes a national network of public-private partnerships that assist minority business enterprises in accessing capital, contracts, and grants, creating and maintaining jobs, providing counseling and mentoring, and facilitating the growth of minority business enterprises by promoting trade.

TITLE II--NEW INITIATIVES TO PROMOTE ECONOMIC RESILIENCY FOR MINORITY BUSINESSES

This title establishes initiatives to promote the economic resiliency of minority businesses, including requiring the MBDA to (1) conduct a government-business forum to review problems and programs relating to capital formation by minority businesses, (2) study and report on opportunities for providing alternative financing solutions to minority businesses, and (3) promote the education and training of socially or economically disadvantaged individuals in subjects directly relating to business administration and management.

TITLE III--RURAL MINORITY BUSINESS CENTER PROGRAM

This title authorizes the MBDA to establish rural business centers, in partnership with minority-serving institutions or consortia of such institutions that are led by a minority-serving institution, to serve rural minority businesses and to focus on issues such as broadband adoption, advanced manufacturing, and job creation.

TITLE IV--MINORITY BUSINESS DEVELOPMENT GRANTS

This title establishes the Minority Business Development grant program to award grants to nonprofit organizations that support the development, growth, or retention of minority businesses.

TITLE V--MINORITY BUSINESS ENTERPRISES ADVISORY COUNCIL

This title requires the MBDA to establish the Minority Business Enterprises Advisory Council to serve as a resource for socially or economically disadvantaged businesses.

TITLE VI--FEDERAL COORDINATION OF MINORITY BUSINESS PROGRAMS

This title authorizes the MBDA to coordinate federal plans, programs, and operations that affect the establishment, preservation, and strengthening of socially or economically disadvantaged businesses. Further, it requires the MBDA to take steps to facilitate the participation of federal departments and agencies in supporting such businesses.

TITLE VII--ADMINISTRATIVE POWERS OF THE AGENCY; MISCELLANEOUS PROVISIONS

This title provides administrative authorities, allows the MBDA to provide certain federal assistance (e.g., grants) to public and private sector entities to carry out existing initiatives targeting minority businesses, and establishes record keeping and reporting requirements.

Atlas of Disaster - Rebuild by Design

 rebuildbydesign.org/atlas-of-disaster

July 23, 2024

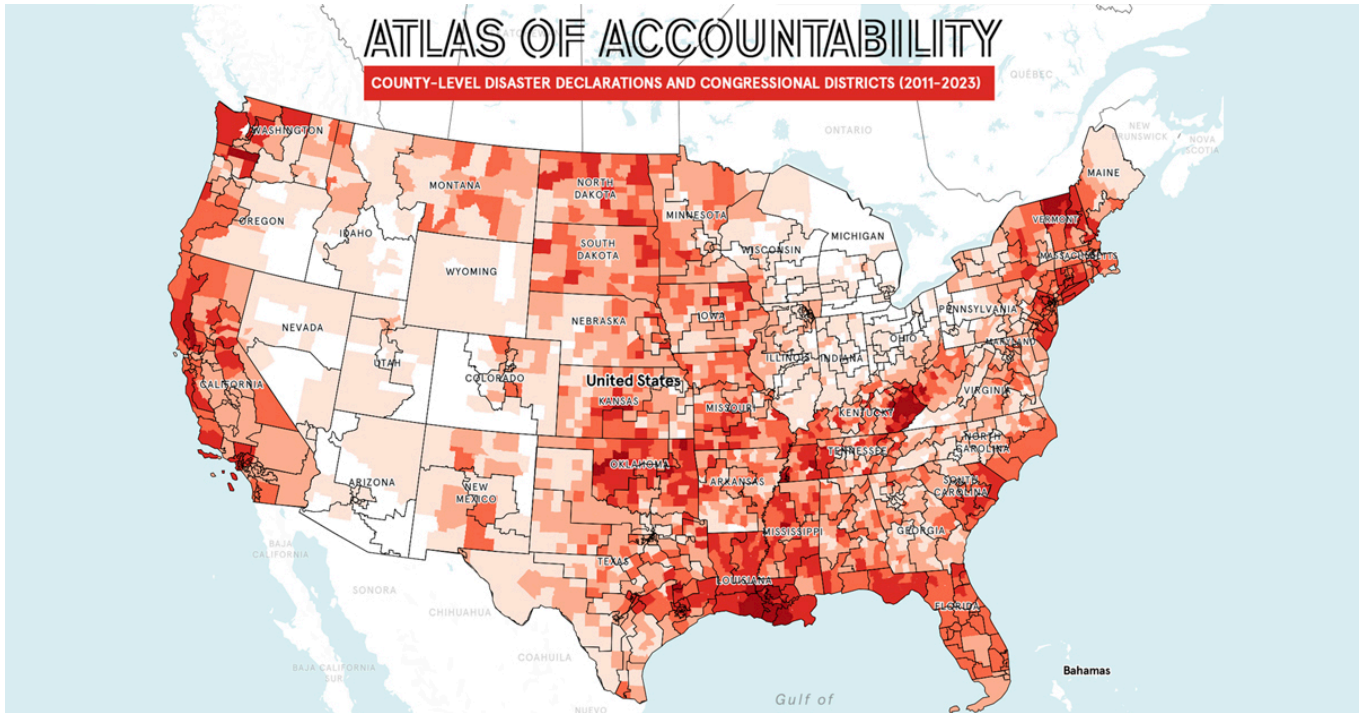


Image Credit: East River Park, 2025. Bjarke Ingels Group

ATLAS OF DISASTER & ACCOUNTABILITY (2011-2024)

Between 2011 and 2024, **99.5% of congressional districts experienced at least one federally declared major disaster due to extreme weather**, affecting communities across political, urban-rural, and socioeconomic lines. These events, fueled by climate change, cost taxpayers **\$117.9 billion in federal relief**—\$72.7 billion from FEMA for hazard mitigation (HM) and public assistance (PA), as well as \$45.2 billion from HUD’s Community Development Block Grant – Disaster Recovery (CDBG-DR) program.

The Atlas of Accountability maps federal disaster declarations and post-disaster assistance obligations for every county in the U.S., with overlays by congressional district. It reveals where billions in taxpayer dollars have been spent and raises a critical question: **How can we invest in long-term resilience, instead of paying for recovery again and again?**

You will find below a county-by-county look across the United States. From Alabama to Wyoming, you can visualize how disaster occurrences, federal funding, and community vulnerability intersect. Whether you are a policymaker, journalist, planner, or concerned resident, the Atlas helps you:

- **Understand** your state's data through the Atlas of Accountability interactive tool.
- **Use** the Atlas report to advocate for smarter, forward-looking investments.

[READ THE PRESS RELEASE](#)

[DOWNLOAD NATIONAL FACT SHEET](#)

CLICK TO DOWNLOAD THE ATLAS STORY



[Click here to access the interactive tool full screen >>](#)

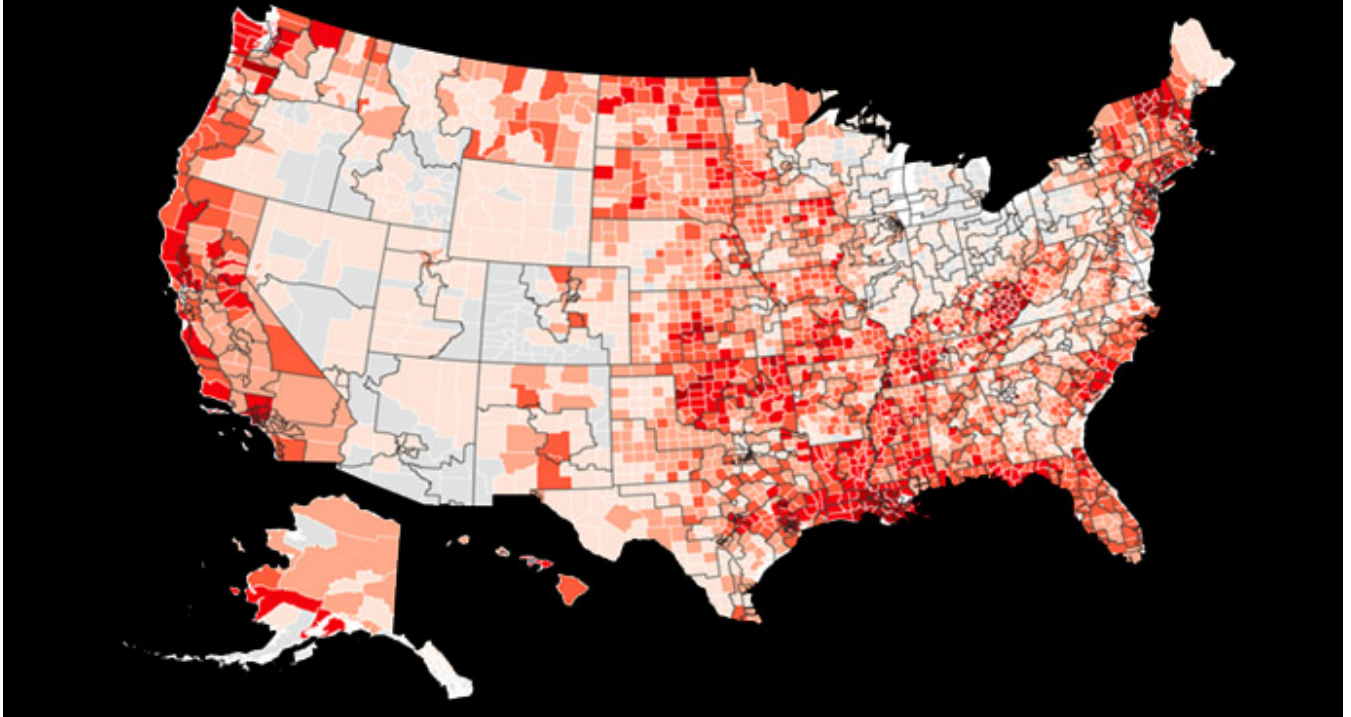
ATLAS RESOURCES



ATLAS OF DISASTER REPORT

Released in 2022, the Atlas of Disaster offers a county-by-county snapshot of climate-driven disasters across the U.S. from 2011–2021. The report highlights widespread impacts, gaps in federal policy, and the urgent need for pre-disaster investment in both physical and social infrastructure. [Read the report >>](#)

50 WEEKS OF ATLAS



SHARE YOUR STATE & YOUR STORY

Each week in 2025, we shared a key finding from the Atlas for all 50 states through downloadable graphics and captions. Explore your state's climate risk data and help spread awareness by sharing it on social media. [Download state >>](#)

ATLAS OF INSPIRATION



CLIMATE INFRASTRUCTURE WE LOVE

Explore a growing collection of climate infrastructure projects, planning strategies, & funding approaches That are currently helping communities across the U.S. build resilience. [Get inspired >>](#)

FINDINGS FOR EXTREME WEATHER DISASTERS 2011-2024

80% OF STATES HAD 10 OR MORE DISASTERS

Between 2011 and 2024, 40 states—representing 80% of the U.S.—recorded ten or more major disaster declarations. In 28 of those states, every county experienced at least one disaster.

39 DISASTERS IN CALIFORNIA*

California* experienced 39 major federal disaster declarations—more than any other state. Some declarations may be counted separately for tribal lands.

95.5% of U.S. Residents Live in Disaster-Declared Counties

Since 2011, around 315.6 million Americans reside in counties that have experienced a major disaster declaration, representing 95.5% of the U.S. population.

99.5% OF CONGRESSIONAL DISTRICTS HAVE EXPERIENCED DISASTERS

Only two districts have reported zero major disaster declarations since 2011, underscoring the bipartisan need for resilient infrastructure.

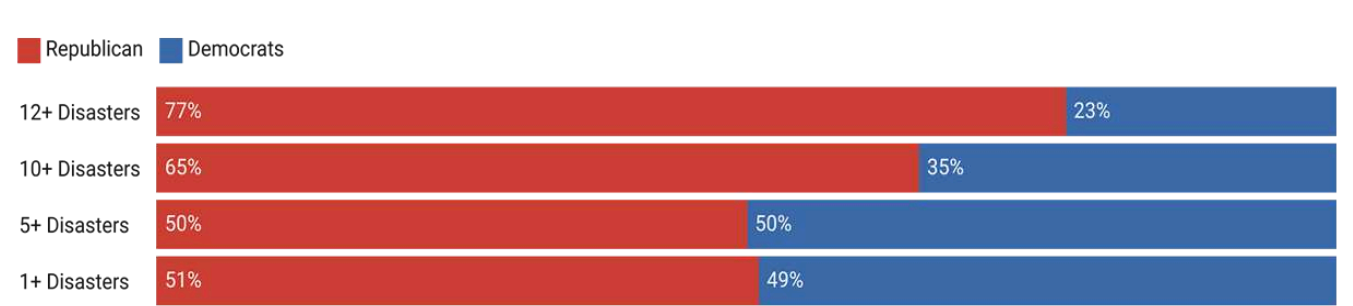
\$117.9 BILLION IN FEDERAL DISASTER FUNDS

Since 2011, the federal government has allocated \$72.7 billion through FEMA’s Public Assistance and Hazard Mitigation programs, plus \$45.2 billion in HUD CDBG-DR funds for extreme weather events.

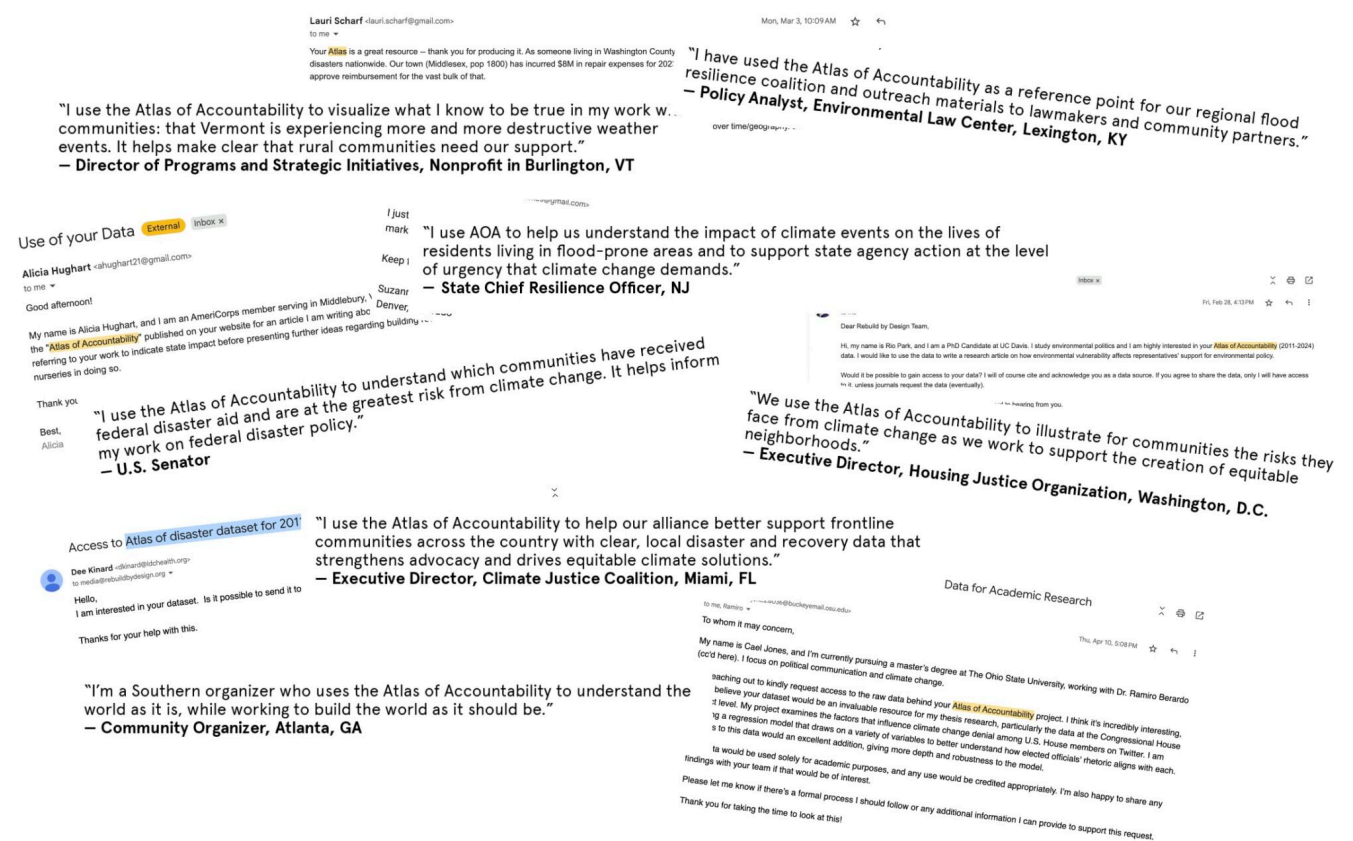
\$1 INVESTED IN PRE-STORM ADAPTATION CAN SAVE \$11

According to the National Association of Building Sciences, investing in pre-storm adaptation has a 11:1 payback for building code enhancements, 7:1 for riverine flooding, and 13:1 for earthquakes. Investing saves taxpayer dollars.

Disaster Count Across All Congressional Districts 2011-2024



TELL US HOW YOU ARE USING THE ATLAS



Name

Title & Organization

Email

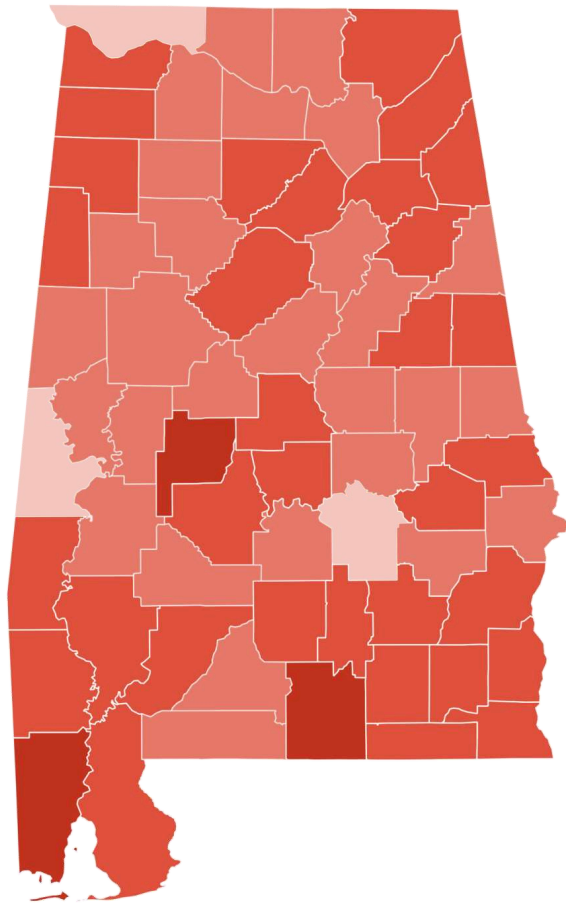
Message

Yes, I would like to be featured on Rebuild by Design's website.

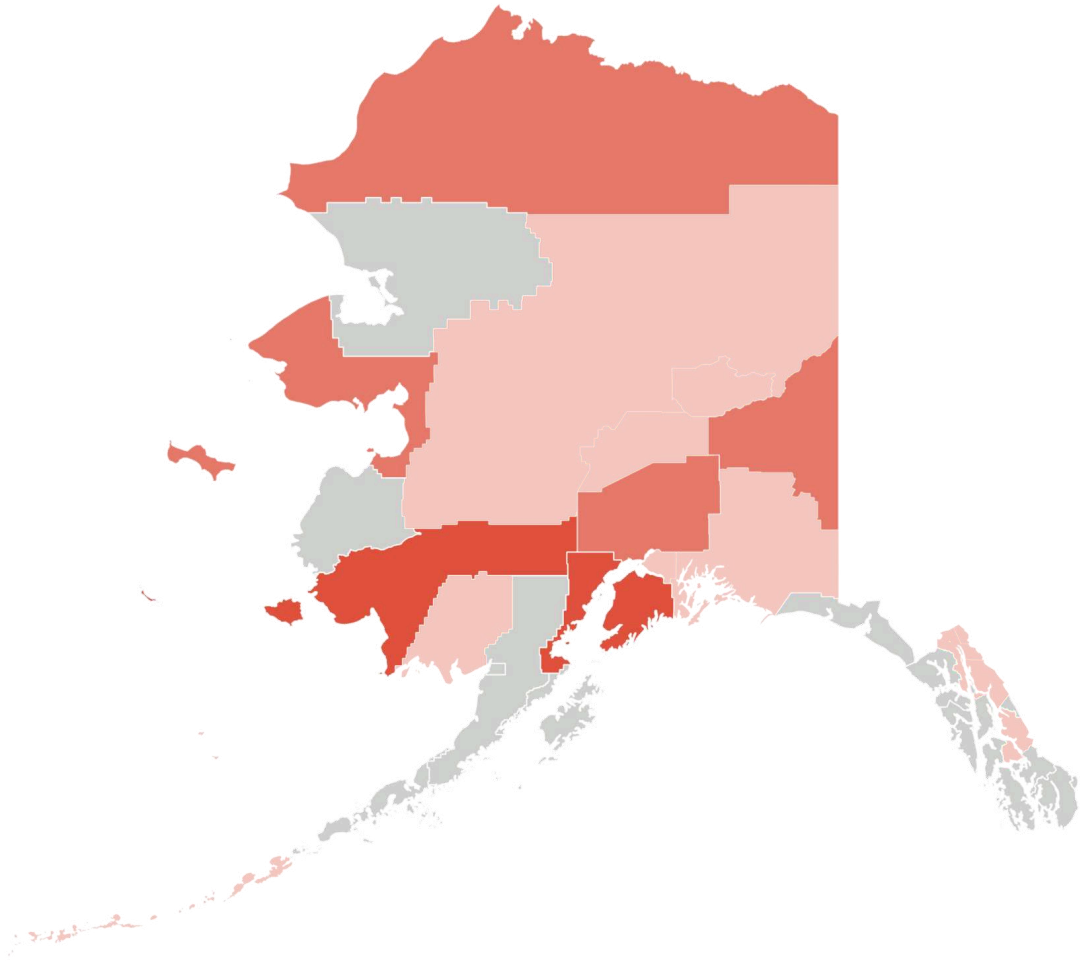
SEARCH YOUR STATE's DISASTER DECLARATIONS & FEDERAL ASSISTANCE

STATE BY STATE RISK MAPS (COUNTY-level)

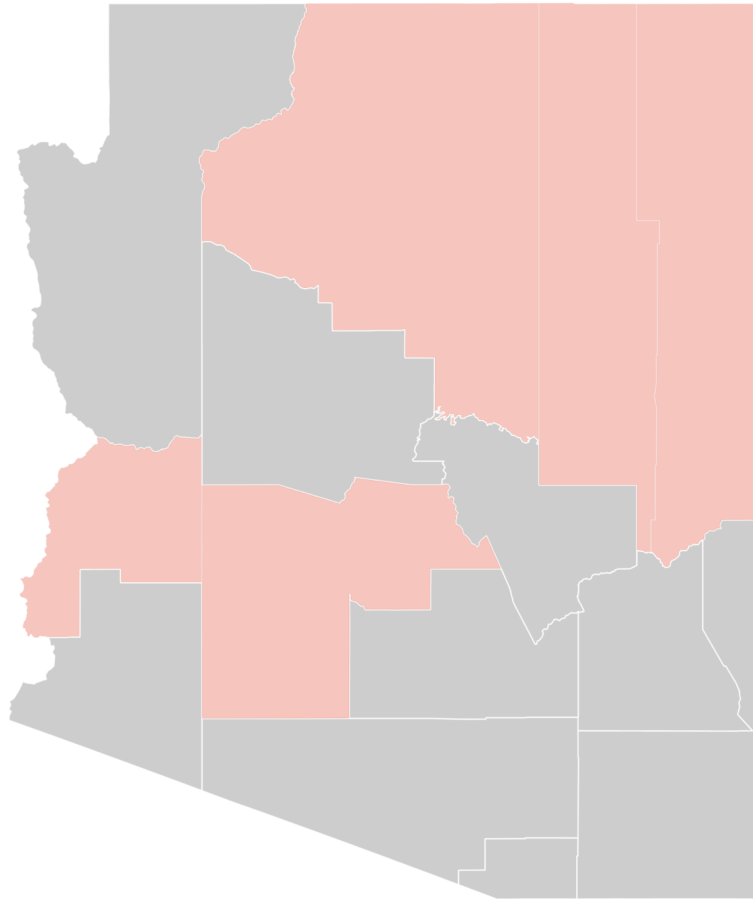
[Alabama](#)



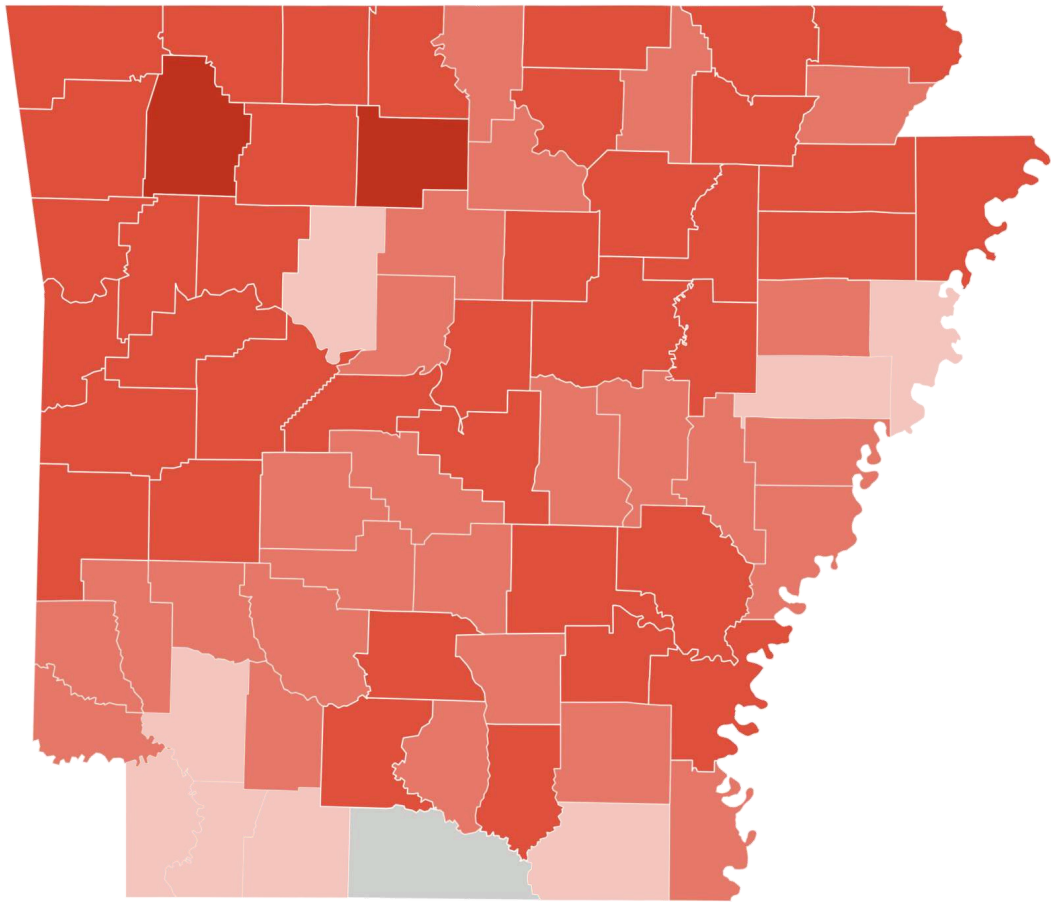
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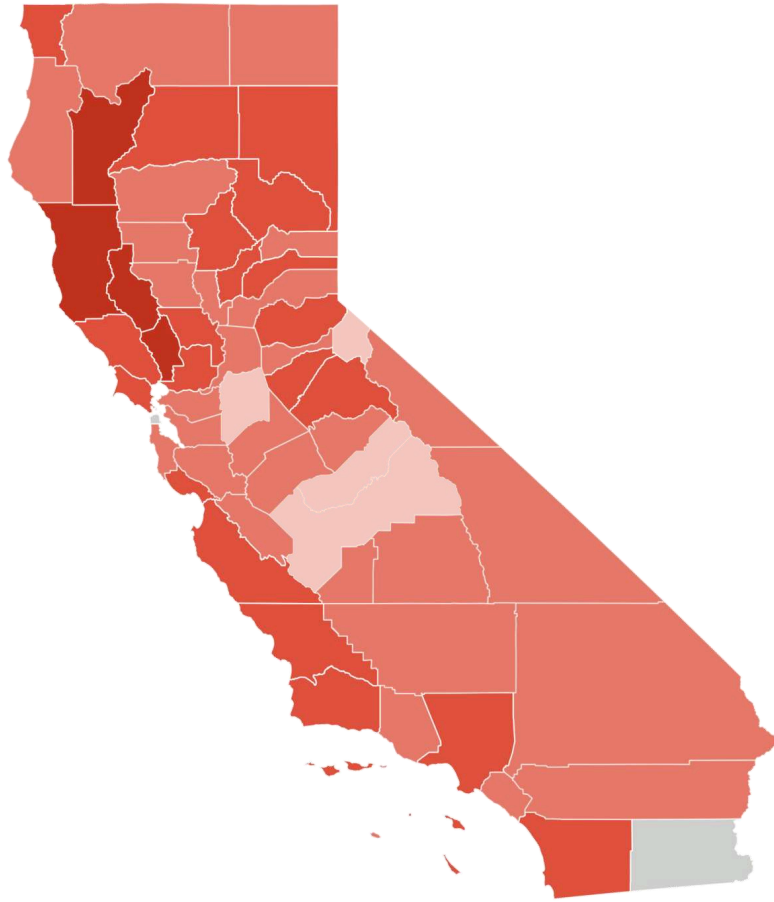
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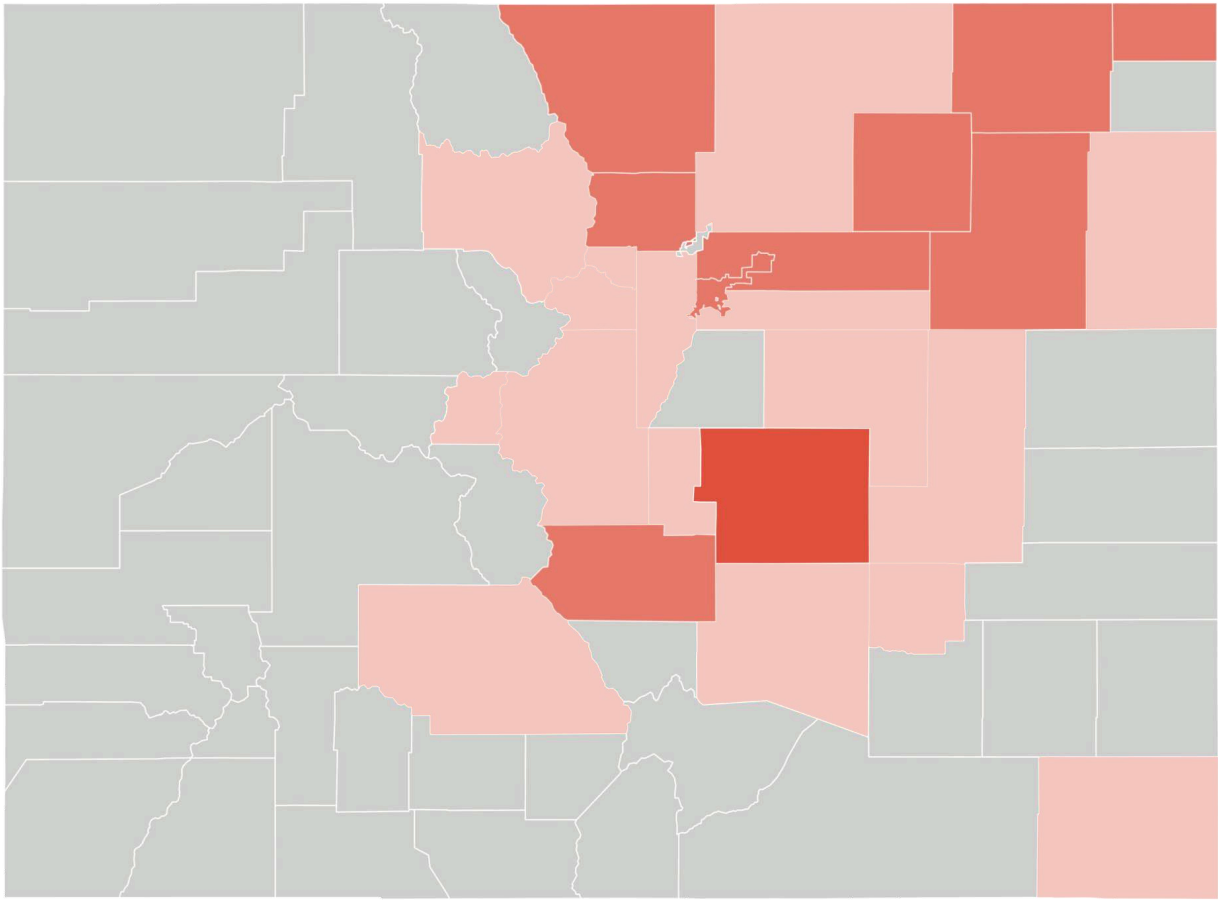
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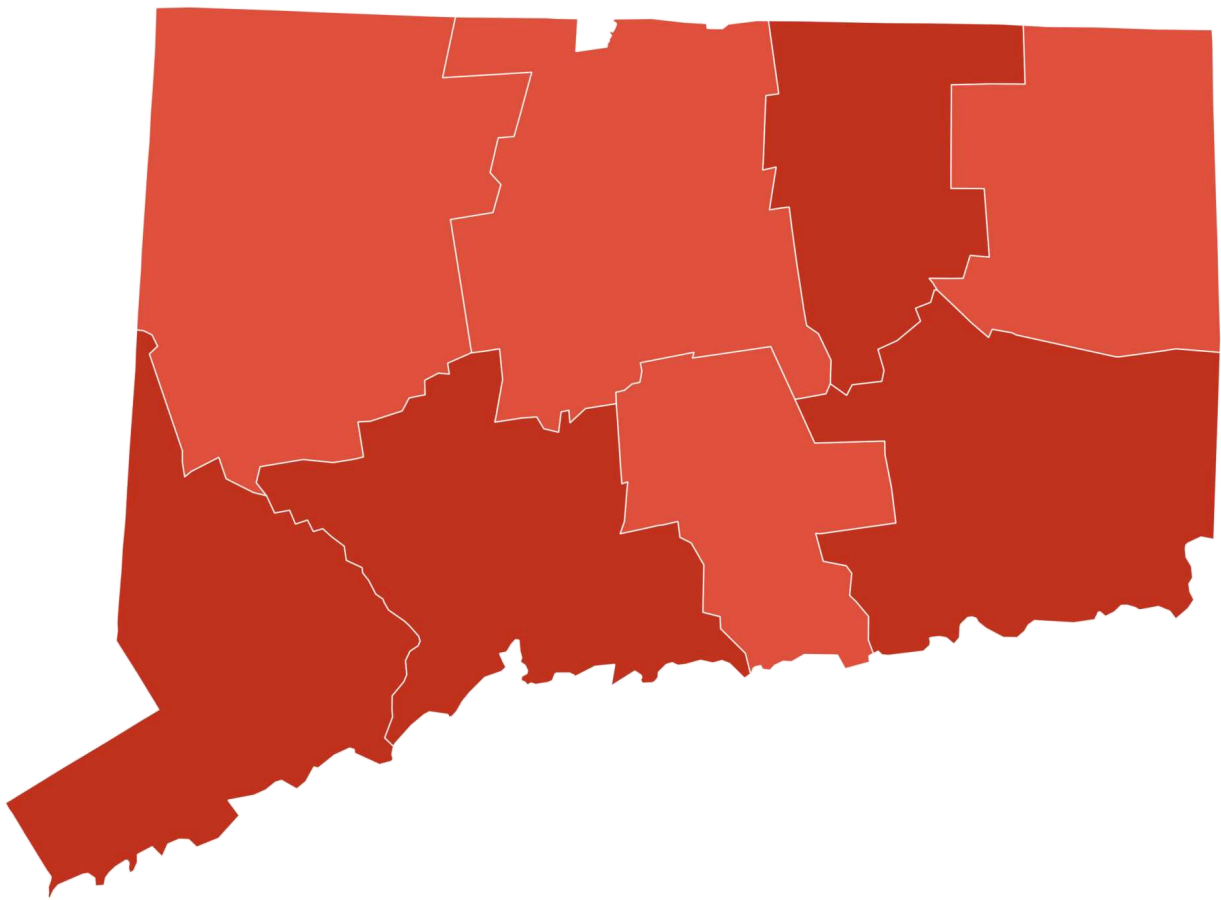
[California](#)



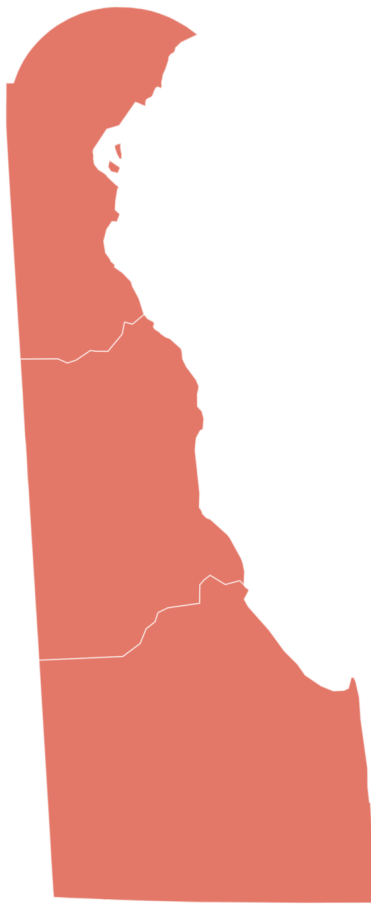
[Colorado](#)



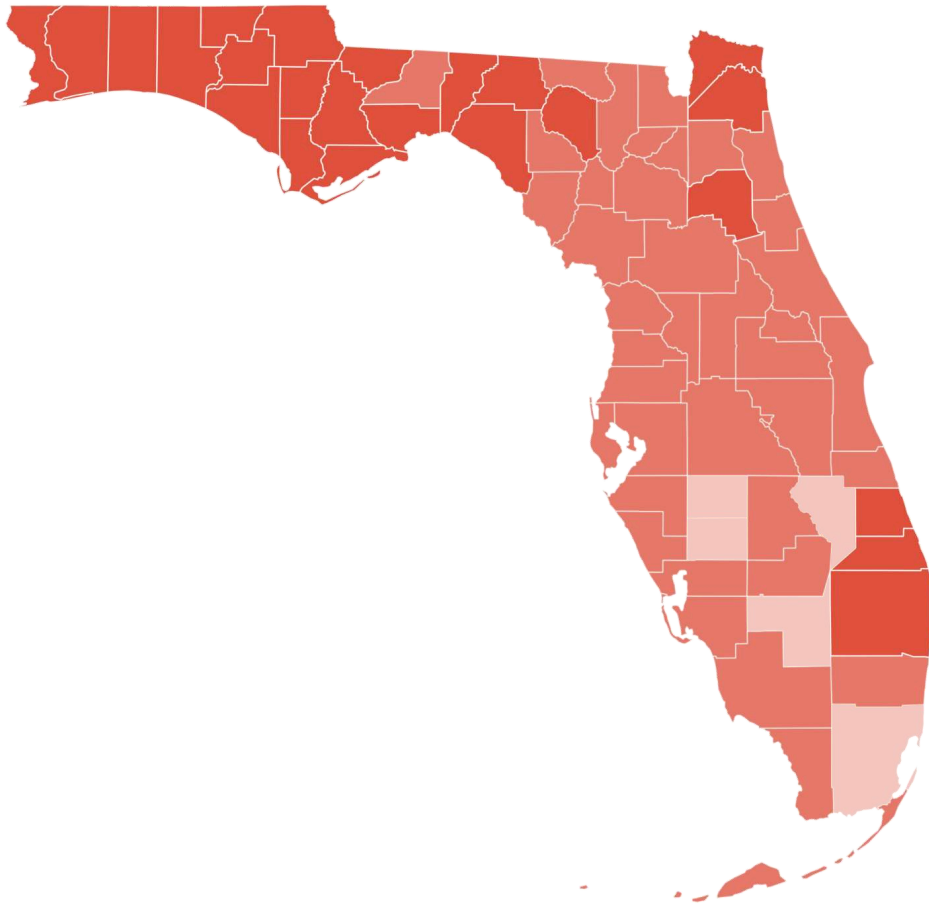
[Connecticut](#)



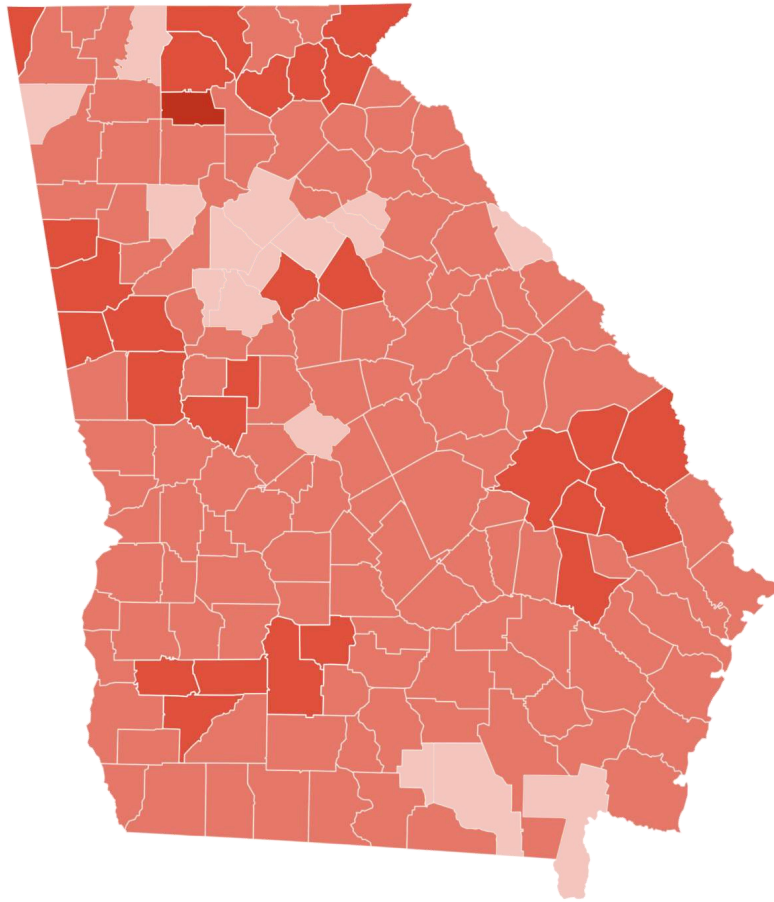
[Delaware](#)



[Florida](#)



[Georgia](#)



ATLAS ON THE ROAD



KENTUCKY

Counties in Kentucky continue to top the charts for the most disaster occurrences in the nation. Rebuild is seeding a coalition of NGO to raise awareness of the State's risk and work together to develop long term solutions. [Learn more>>](#)



MASSACHUSETTS

Massachusetts communities face escalating climate risks that threaten lives, infrastructure, and public health. Rebuild by Design is working with local partners to call for dedicated, long-term funding to support community-led, data-informed climate adaptation [Learn more>>](#)



NEW YORK

By leading the coalition behind the landmark \$4.2 billion Environmental Bond Act, Rebuild set a model for how states can fund resilient infrastructure, create jobs, and prepare communities for future climate risks. [Learn more>>](#)



NEW JERSEY

From coastal and river flooding to intense storms and power-outage events, communities across New Jersey face mounting climate risks. Rebuild by Design is partnering with local organizations and leaders to build a movement aimed at securing sustainable, dedicated funding for climate resilience and long-term adaptation. [Learn more>>](#)



VERMONT

Through partnerships with local legislators and organizations, Rebuild co-hosted an educational series to equip current and incoming lawmakers with the tools to build local capacity for adapting to extreme weather. [Learn more>>](#)



CONNECTICUT

As Connecticut confronts increasing disasters and mounting infrastructure needs, Rebuild by Design is equipping communities and policymakers with data, tools, and a statewide legislative lookup to strengthen advocacy for long-term investment in climate resilience. [Learn more>>](#)

TOGETHER, WE CAN FIX THIS

While these numbers seem bleak, there are actions we can take to protect communities lives and livelihoods. Rebuild by Design is calling for:

- 1. Shifting** post-disaster federal dollars for pre-disaster funding so communities can invest in infrastructure before they suffer.
- 2. Creating** new sources of dedicated funding such as investigating state voter referendums, surcharges on certain types of insurance coverage (e.g., [property and casualty](#)), and state-level superfund laws.

3. Mandating that U.S. insurance companies take into account mitigation measures when pricing insurance policies. Insurance companies already increase prices with increasing risk. Conversely, companies should reduce premiums when risk-reduction measures are implemented, giving policyholders incentives to take actions that will save all taxpayers money. Just as FEMA does with the National Flood Insurance Program's Community Rating System.

4. Building better infrastructure. Ensure that every piece of new infrastructure is built to withstand climate events to the life cycle of that infrastructure. Design infrastructure to address both physical and social vulnerabilities, thus multiplying taxpayers' investments.

5. Amending the Stafford Act to better account for loss of life – not just cost of damages – so that communities experiencing extreme heat and cold events are able to access federal recovery resources.

Atlas of Accountability is based on research and data sources provided by the following:

- **FEMA Data:** Disaster declarations for climate events occurring 2011-2024, courtesy [iParametrics](#)
- **County Districts:** Geographic boundaries from U.S. Census [TIGER/Line Shapefiles \(2023\)](#)
- **Congressional Districts:** Geographic boundaries with 119th congressional representation from [USDOT BTS](#)
- **Population:** [U.S. Census ACS 2018-2022 \(5-Year Estimate\)](#)
- **Spatial Analysis:** Congressional districts were assigned to counties using spatial analysis, with a minimum 5% area overlap threshold between county and district boundaries.

Note: Extreme heat is recognized as a leading threat in what is on track to be the hottest year on record (Climate Central). It is not included in this analysis because the Stafford Act, the law governing the disaster declaration process, ties disaster declarations to economic loss or damages. Since extreme heat events are less likely to cause physical damage, there has never been a federal major disaster declaration for extreme heat or extended heat waves. According to NOAA, heat remains the leading cause of weather-related deaths in the United States.

Terms: "Major Disaster Declaration" as issued by the President for severe events beyond Local or State control, "Climate Disaster" as extreme weather events worsened by climate change (excluding e.g. biological), "FEMA Public Assistance" as funding for local, state, or tribal governments for disaster response and recovery, and "FEMA Hazard Mitigation" as funding for local, state, or tribal governments to reduce future disaster risks tied to the same climate event.

ATLAS OF INSPIRATION

The **Atlas of Inspiration** is a growing collection of climate infrastructure projects, planning strategies, and funding approaches that are already making an impact. From green infrastructure to affordable housing and resilient transportation, these projects show how communities across

the country are addressing multiple hazards while improving daily life. Many of these ideas highlight how climate adaptation can inspire action, advance equity, and drive long-term systems to change.

[Explore the Atlas of Inspiration Here](#)



[Arizona Department of Transportation Resilience Program](#)



[Arizona Grid Resilience Grant Program](#)



[Bayou Greenways 2020](#)



[Berkeley Springs Downtown Green Infrastructure Retrofit](#)

A graphic featuring two glowing lightbulbs against a dark, textured background. The text "BUILDING A BETTER KY" is prominently displayed in large, white, bold, sans-serif capital letters. Below it, the text "BUILDING STRONGER COMMUNITIES" is written in a smaller, white, sans-serif capital font. The entire graphic is framed by a dark olive-green border.

BUILDING A BETTER KY

BUILDING STRONGER COMMUNITIES

[Better Kentucky Plan](#)



[Blackfeet Nation Climate Adaptation Plan](#)



INSCRIÇÃO



Inscreva-se ou indique quem possui Excelência na Qualidade de seus produtos e serviços e merece ser reconhecido.

[More>>>](#)

VISION

To study actions of national interest in the economic, educational, social, cultural, environmental, and charitable areas, thus collaborating with the nation in raising the social, cultural, moral, and material level of its citizens, recognizing those who stand out in society in various fields.

MISSION

To encourage and contribute to the journey towards excellence in quality, collaborating with the nation in raising the moral and material level of Brazilian citizens by offering solutions for the social, cultural, environmental, moral, and material development of the Brazilian nation.

VALUES

Equality, justice and social peace, integrity, transparency, ethical commitment and cooperation, social responsibility, sustainability.

STATUTORY PURPOSE

BRASLIDER, a private entity founded in 2009, aims to support, promote, and develop actions to encourage and research the quality of life of companies and human beings in the environment and society in general, and may promote, collaborate, coordinate, advise, mediate, or execute actions and projects aimed at:

- promoting, researching, contributing to, and encouraging the quality of life of business organizations and human beings, ensuring the prosperity of citizens, the integrity of the environment, technological advancement, and the competitiveness of the country;
- recognizing, distinguishing, and rewarding the management of companies, institutions, and citizens who stand out in the Brazilian market, whose excellence in the quality of their products or services effectively contributes to the socioeconomic development of the country, valuing national products;
- advising and providing support in the training of professionals from organizations in modern management methods;
- advising and providing support for the implementation of business management systems;
- developing social, cultural, and environmental projects aimed at the well-being of citizens;
- to develop and conduct lectures, symposia, and conferences in the business, social, cultural, and environmental areas;
- the inclusion of segments of the economically active population in the labor market through socio-educational actions;
- the promotion of job and income generation through the teaching of productive, cooperative, and associative practices of cultural and/or economic value;
- the planning, coordination, and execution of professional qualification and requalification programs;
- to facilitate the creation, expansion, and consolidation of small-scale, formal and informal enterprises, whether associated or not, conducted by low-income individuals;
- the free promotion of education and health among marginalized groups through the execution of projects, programs, and actions in the field of Social Assistance;
- the development of methodologies for evaluating public policies, planning and coordinating quantitative and/or qualitative research with socio-economic content, production and dissemination of technical-scientific information, and the development of software, websites, or other computer systems;
- to foster actions that contribute to keeping alive the popular cultural memory related to the uses and traditions of Brazilian cultural diversity, the promotion of art and culture, and the defense and conservation of historical and artistic heritage;
- the preservation, defense, and conservation of the environment and the promotion of sustainable development;
- the promotion of ethics, peace, citizenship, human rights, democracy, and other universal values.
- In carrying out its activities, the institution will observe the principles of legality, impartiality, morality, publicity, economy, and efficiency, and will not discriminate on the basis of race, color, gender, or religion.
- promoting actions that contribute to the defense and conservation of historical and artistic heritage;
- encouraging the production and development of culture, the dissemination of technological knowledge, and the publication of technical and scientific publications;
- promoting actions that contribute to the preservation of ecological and social heritage throughout the national and international territory, fostering research in technological and cultural innovation in the areas of biotechnology and pharmaceuticals;
- providing sound broadcasting services for educational, artistic, cultural, and informational purposes, respecting ethical and social values, for the benefit of the general development of the community, through concession, permission, or authorization for the operation of community broadcasting in accordance with specific legislation;
- preserving, defending, and conserving the environment and promoting sustainable development;
- To promote other activities that, in the opinion of the Executive Board, are of interest in achieving its statutory objectives.

BENEFÍCIOS



Entrevista com Homenageado do Prêmio Excelência e Qualidade Brasil !

[More>>>](#)

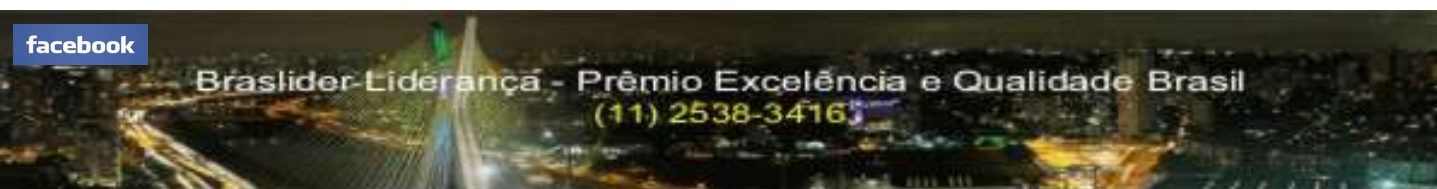


Exhibit D: Personal Documents

Este pasaporte debe ser firmado por el titular,
salvo en caso de incapacidad.

PASSAPORTE
PASSPORT



DEDÍZIRI ICΔ EENEDATIVAΔ NO RDΔCII

TRC / DATE

9

PAIS EMISSOR / ISSUING COUNTRY

BRA

PASSAPORTE N° / PASSPORT No

FS193312

SOBRENOME / SURNAME

LINA DESSART

NOME / GIVEN NAMES

RAFAEL

NACIONALIDADE / NATIONALITY

BRASILEIRO(A)

DATA DO NASCIMENTO / DATE OF BIRTH

2000

SEXO / SEX

...

NATURALIDADE / PLACE OF BIRTH

PORTO ALEGRE

FILIACÃO / FILIATION

JORGE GERALDO JAYME DESSART

SANDRA LIMA

DATA DE EXPEDIÇÃO / DATE OF ISSUE

28 DEC 2016

VÁLIDO ATÉ / DATE OF EXPIRY

24 DEZ/DEC 2026

IDENTIDADE Nº / PERSONAL Nº

AUTORIDADE / AUTHORITY

DPF/SM/RS

P<BRALIMA<DESSART<<RAFAEL<<<<<<<<<<<<<<<<<
FS193312<8BRA7508206M2612258<<<<<<<<<<<<<00

Nome **RAFAEL LIMA DESSART**
Nom
Name

Sexo **MASCULINO**
Sexe
Sex

Lugar e data do nascimento
Lieu et date de naissance
Place and date of birth

PORTO ALEGRE/RS
20/AGO/1975

Filiação
Noms des parents
Father's and mother's name

JORGE GERALDO JAYME DESSART

E

SANDRA LIMA

Repartição expedidora - Délivré par - Issued by

**SR/DPF/RS - SERVIÇO
DE POLÍCIA MARÍTIMA
AÉREA E DE FRONTEIRAS
PORTO ALEGRE**

Válido até - Valable jusqu'à - Valid until

1/9 JUN 1996

Data da expedição - Délivré le - Issued on

20 JUN 1990



Mario Roucinha Marques
Chefe da Seção de Passaportes
SPMAF/SR/DPF/RS

Nome e cargo do funcionário que o concedeu
Nom et qualité de l'agent expéditeur
Name and function of the issuing authority

U.S. IMMIGRATION
060 MIA C12326

JUL 22 1990

ADMITTED
UNTIL



VISTOS - VISAS

8

Nº 007767



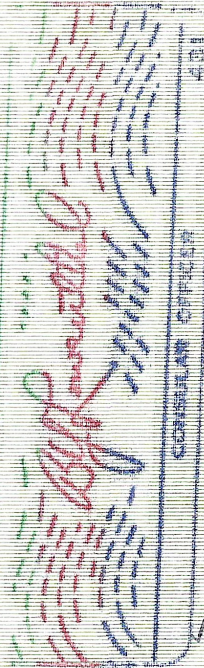
THE UNITED STATES
OF AMERICA
NONIMMIGRANT VISA
ISSUED AT

PORTO ALEGRE

8-1B-2 27 JUN 1990



RAFAEL L. DESSERT



U.S. IMMIGRATION
060 MIA - IAP 631

JUL 24 1990

VISTOS VISAS
ADMITTED
UNTIL 9



CIVIL REGISTRY OF NATURAL PERSONS

BIRTH CERTIFICATE

NAME:

RAFAEL LIMA DESSART

REGISTRATION:

099804 01 55 1975 1 00066 260 0078724 90

DATE OF BIRTH IN FULL	DAY	MONTH	YEAR
August twentieth, nineteen seventy-five	20	08	1975

TIME OF BIRTH	CITY OF BIRTH AND FEDERATION UNIT
8:15 PM	Porto Alegre - RS

CITY OF REGISTRATION AND FEDERATION UNIT	PLACE OF BIRTH	SEX
Porto Alegre - RS	Hospital	Male

FILIATION

Jorge Geraldo Jayme Dessart.
Sandra Lima.

GRANDPARENTS

Gastão Dessart and Coralía Pegas Dessart; Telmo Lima and Antonia Batista de Souza

TWINS	NAME AND REGISTRATION NUMBER OF TWIN(S)
NO	X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.

DATE OF REGISTRATION (IN FULL)	LIVE BIRTH REGISTRATION NUMBER
September fifth, nineteen seventy-five	X.X.X.X.X.X.X.X.

NOTES/ANNOTATIONS

X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.

Civil Registry of Natural Persons of the 4th District
Registrar: Edair José Carneiro
Porto Alegre - RS
Avenida Osvaldo Aranha, 236 - Bom Fim Neighborhood
Phone: (51) 3227-2217

The content of this certificate is true. I certify.
Porto Alegre, January 26, 2010.

---//signature//---

Edgar Edair Carneiro
Deputy Registrar

Digital Seal for Notarial and Registry Oversight (State Law No. 12.692/2006):	0466.00.0900003.16053
Certificate: R\$ 15.20 - Electronic processing: R\$ 2.60 - Seals: R\$ 0.60 - Receipt No. 70407	
The validity of the digital seals can be verified on the Court of Justice website: www.tjrs.jus.br	

Civil Registry of
Natural Persons of the
4th District
PORTO ALEGRE

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: June 30, 2025.



REGISTRO CIVIL DAS PESSOAS NATURAIS
CERTIDÃO DE NASCIMENTO

NOME:

RAFAEL LIMA DESSART

MATRÍCULA:

099804 01 55 1975 1 00066 260 0078724 90

DATA DE NASCIMENTO POR EXTENSO

Vinte de agosto de um mil e novecentos e setenta e cinco

DIA

20

MÊS

08

ANO

1975

HORA

20h15min

MUNICÍPIO DE NASCIMENTO E UNIDADE DA FEDERAÇÃO

Porto Alegre - RS

MUNICÍPIO DE REGISTRO E UNIDADE DA FEDERAÇÃO

Porto Alegre - RS

LOCAL DE NASCIMENTO

Hospital

SEXO

Masculino

FILIAÇÃO

Jorge Geraldo Jayme Dessart.
Sandra Lima.

AVÓS

Gastão Dessart e Coralía Pegas Dessart; Telmo Lima e Antonia Batista de Souza

GÊMEO

Não

NOME E MATRÍCULA DO(S) GÊMEO(S)

X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.

DATA DO REGISTRO POR EXTENSO

Cinco de setembro de um mil e novecentos e setenta e cinco

NÚMERO DA DECLARAÇÃO DE NASCIDO VIVO

X.X.X.X.X.X.X.X.

OBSERVAÇÕES AVERBAÇÕES

X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.

Registro Civil das Pessoas Naturais da 4ª Zona

Titular do Ofício: Edair José Carneiro

Porto Alegre - RS

Av. Osvaldo Aranha, 236 - Bairro Bom Fim

Fone: (51) 3227-2217

O conteúdo da certidão é verdadeiro. Dou fé.
Porto Alegre, 26 de janeiro de 2010.

Edson Edair Carneiro
Registrador Substituto

Selo Digital de Fiscalização Notarial e Registral
(Lei Estadual n. 12.692/2006):

0466.00.0900003.16053

Certidão: R\$ 15,20 - Processamento eletrônico: R\$ 2,60 - Selos: R\$ 0,60 - Nota nº 70407

A validade dos selos digitais poderá ser consultada no site do Tribunal de Justiça: www.tjrs.jus.br



I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: July 1, 2025.



CERTIDÃO DE CASAMENTO

Registro Civil
Das Pessoas
Naturais da 4ª Zona
PORTO ALEGRE



CIVIL REGISTRY OF NATURAL PERSONS

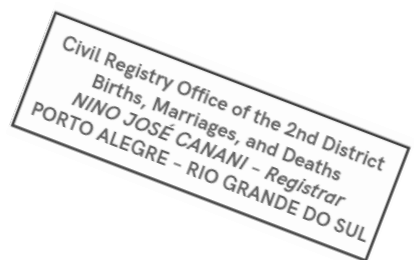
BIRTH CERTIFICATE

NAME:

ARTUR GOMES DESSART

REGISTRATION:

100024 01 55 2010 1 00672 077 0281009 24



DATE OF BIRTH IN FULL	DAY	MONTH	YEAR
November twenty-third, two thousand ten	23	11	2010

TIME OF BIRTH	CITY OF BIRTH AND FEDERATION UNIT
4:37 AM	Porto Alegre - RS

CITY OF REGISTRATION AND FEDERATION UNIT	PLACE OF BIRTH	SEX
Porto Alegre - RS	Moinhos de Vento hospital	Male

FILIATION

Rafael Lima Dessart, geologist.
Cristiane Herédia Gomes, geologist.

GRANDPARENTS

Jorge Geraldo Jayme Dessart and Sandra Lima; Flavio de Meda Gomes and Norma Aparecida Heredia Gomes

TWIN	NAME AND REGISTRATION NUMBER OF TWIN(S)
No	X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.

DATE OF REGISTRATION (IN FULL)	LIVE BIRTH REGISTRATION NUMBER
November thirtieth, two thousand ten	30538923247

NOTES/ ANNOTATIONS

X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.

2nd Civil Registry Office of Natural Persons
Registrar: Nino José Canani
Judicial District: Porto Alegre
Porto Alegre - RS
Avenida Venâncio Aires, 243 - Cidade Baixa Neighborhood
Phone: (51) 3221-7176- E-Mail: rcpn2zona@terra.com.br

The content of this certificate is true. I certify.
Porto Alegre, November 30, 2010.

---//signature//---

Sandra Regina Klein Diel
Third Deputy Registrar

Digital Seal for Notarial and Registry Oversight (State Law No. 12.692/2006):	0464.00.1000003.15922
Fees: Exempt.	
The validity of the digital seals can be verified on the Court of Justice website: www.tjrs.jus.br	

S. R. K. D. (Sandra Regina Klein Diel)

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: July 1, 2025.



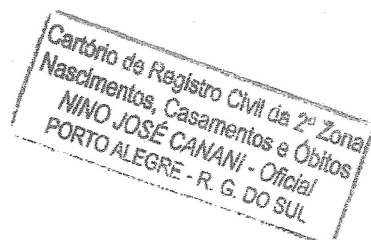
REGISTRO CIVIL DAS PESSOAS NATURAIS
CERTIDÃO DE NASCIMENTO

NOME:

ARTUR GOMES DESSART

MATRÍCULA:

100024 01 55 2010 1 00672 077 0281009 24



DATA DE NASCIMENTO POR EXTENSO

Vinte e três de novembro de dois mil e dez

DIA

23

MÊS

11

ANO

2010

HORA

04h37min

MUNICÍPIO DE NASCIMENTO E UNIDADE DA FEDERAÇÃO

Porto Alegre - RS

MUNICÍPIO DE REGISTRO E UNIDADE DA FEDERAÇÃO

Porto Alegre - RS

LOCAL DE NASCIMENTO

hospital Moinhos de Vento

SEXO

Masculino

FILIAÇÃO

Rafael Lima Dessart, geólogo.

Cristiane Herédia Gomes, geóloga.

AVÓS

Jorge Geraldo Jayme Dessart e Sandra Lima; Flavio de Meda Gomes e Norma Aparecida Heredia Gomes

GÊMEO

Não

NOME E MATRÍCULA DO(S) GÊMEO(S)

X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.

DATA DO REGISTRO POR EXTENSO

Trinta de novembro de dois mil e dez

NÚMERO DA DECLARAÇÃO DE NASCIDO VIVO

30538923247

OBSERVAÇÕES AVERBAÇÕES

X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.X.

2º Ofício do Registro Civil das Pessoas Naturais

Titular do Ofício: Nino José Canani

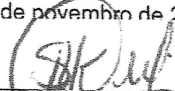
Comarca: Porto Alegre

Porto Alegre - RS

Avenida Venâncio Aires, 243 - Bairro Cidade Baixa

Fone: (51) 3221-7176 - E-Mail: rcpn2zona@terra.com.br

O conteúdo da certidão é verdadeiro. Dou fé.
Porto Alegre, 30 de novembro de 2010


Sandra Regina Klein Diehl
Terceira Substituta

Selo Digital de Fiscalização Notarial e Registral
(Lei Estadual n.12.692/2006):

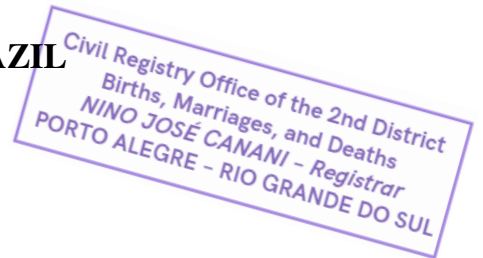
0464.00.1000003.15922

Emolumentos: Gratuito.

A validade dos selos digitais poderá ser consultada no site do Tribunal de Justiça: www.tjrs.jus.br

S. R. K. D.

FEDERATIVE REPUBLIC OF BRAZIL



Nino José Canani

Civil Registry Registrar for Marriages, Births, and Deaths of the 2nd District of Porto Alegre,
State of Rio Grande do Sul – Brazil – E-mail: rspae02@cartoriosonline.com.br

1st Deputy
Aidé Dolores Lenz Althaus

Avenida Venâncio Aires 243 - Phone: (51) 3221-7176
ZIP Code: 90040-191

I CERTIFY that on page 013 of book A- 584 under No. 245.734

was entered on January 11, 2005 the birth record of ERIC GOMES DESSART * * * * *

born on the fifth of January, two thousand five, in Porto Alegre, in this State, male * * * * *

son of Rafael Lima Dessart * * * * *

and Cristiane Heredia Gomes * * * * *

with paternal grandparents Jorge Geraldo Jayme Dessart * * * * *

and Sandra Lima * * * * *

and maternal grandparents Flavio de Meda Gomes * * * * *

and Norma Aparecida Heredia Gomes * * * * *

The declarant was the father * * * * *

Notes

* * * * *

The above is true and I certify.

Fees R\$ Emoluments R\$12.50

Porto Alegre, January 11, 2005.

---//signature//---

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: June 30, 2025.

REPÚBLICA FEDERATIVA DO BRASIL



Nino José Canani

Oficial do Registro Civil de Casamentos, Nascimentos e Óbitos da 2ª Zona de Porto Alegre,
Estado do Rio Grande do Sul — Brasil — E-mail: rspae02@cartoriosonline.com.br

Substituta

1ª Aidê Dolores Lenz Althaus

Avenida Venâncio Aires, 243 - Fone: (51) 3221-7176
CEP: 90040-191

CERTIFICO que as folhas 013 do livro A- 584 sob nº 245.734

foi lavrado em 11 de janeiro de 2005 o assento de

nascimento de ERIC GOMES DESSART *****

nascido aos (cinco de janeiro de dois mil e cinco *****

) em Porto Alegre, neste Estado *****

do sexo masculino *****

filho de Rafael Lima Dessart *****

e Cristiane Heredia Gomes *****

sendo avós paternos Jorge Geraldo Jayme Dessart *****

e Sandra Lima *****

e maternos Flavio de Meda Gomes *****

e Norma Aparecida Heredia Gomes *****

Foi declarante o pai *****

Observações

* * * * *

O referido é verdade e dou fé.

Emolumentos R\$ Emo I . R\$12,50

Porto Alegre, 11 de janeiro de 2005.