

RICARDO MARTINEZ

Chemical Technologist

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WORK EXPERIENCE

CHEMICAL TECHNOLOGIST

GeoLabs, Ministry of Mines – Sudbury, ON

February 2024 – Present

- Prepare solid inorganic samples for solution-based analysis by following precise dissolution and digestion protocols to produce reliable solutions for ICP-AES, ICP-OES, and Flame Atomic Absorption techniques.
- Coordinate laboratory workflow and sample tracking using the Laboratory Information Management System (LIMS); schedule equipment use, prioritize job requests, and maintain organized technical records.
- Perform regular maintenance checks on lab equipment and safety systems, including balances, fume hoods, pipettes, and eyewash stations, ensuring safe and efficient daily operations.
- Contributed to the Quality Assurance program by conducting internal audits in designated lab areas under ISO 17025 and creating Excel macros to streamline sample preparation workflows and minimize errors.
- Manage laboratory inventory by monitoring supply levels, requesting vendor quotes, and coordinating procurement to ensure timely restocking of critical consumables.

LABORATORY ASSISTANT AND PILOT PLANT OPERATOR

XPS (Expert Process Solutions) – Sudbury, ON

January – April 2023 (Co-op) | October 2023– January 2024 (Contract)

- Prepared mineral ore samples through crushing, blending, grinding, screening, and subsampling for pilot-scale testing and analysis.
- Monitored process conditions and environmental systems such as scrubbers to maintain operational and safety compliance.
- Used the Laboratory Information Management System (LIMS) to register and track samples, supporting traceability and data accuracy.
- Maintained a clean and organized lab environment, performed routine maintenance on equipment, and collaborated with team members to solve operational challenges.
- Operated electrolytic cells and performed precise anode replacements using overhead cranes, ensuring safe handling of materials and equipment.

QUALITY ASSURANCE AND ENVIRONMENTAL TECHNICIAN

Domtar Co. April 2023–October 2023.

- Conducted thorough gas testing for hot work and confined space operations, using specialized equipment to ensure employee safety.

- Performed extensive testing of Total Suspended Solids (TSS) and Chemical Oxygen Demand (COD) at various sewer points in a paper mill, ensuring compliance with environmental regulations and enhancing wastewater management.
- Conducted diverse Tappi tests on paper samples, ensuring quality control and collaborating with production teams to address non-compliant results efficiently.
- Executed responsibilities in a high-demand environment, working 12-hour shifts consistently, demonstrating adaptability and efficiency in managing workload and operational demands.

LABORATORY RESEARCH ASSISTANT

Applied Research Center (Cambrian College of Applied Arts and Technology)

September 2021 – December 2022.

- Acquired experience in the use of Flame Atomic Absorption Spectrometry, UV Vis Spectrometry equipment, LECO, and different gravimetric and volumetric techniques.
- Contribute to the development and optimization of laboratory methods and protocols.
- Perform statistical analyses to support data interpretation and validation.
- Design experiments and implement procedures to ensure accurate and precise results.
- Communicate results and findings effectively.
- Contribute to writing technical reports.

ENVIRONMENTAL TECHNICIAN

National Administration of Water and Sewage systems and Ministry of Environment of El Salvador

June 2016 – October 2019

- Conducted comprehensive physicochemical wastewater analyses, including BOD5, COD, settleable solids, dissolved oxygen, turbidity, and sediment composition for effective wastewater quality management.
- Collaborated with the Laboratory Manager to update Quality Management Systems per the latest ISO 17025 standard.
- Enhanced laboratory efficiency by updating and optimizing spreadsheets, reducing human errors, and improving usability.
- Performed physicochemical and microbiological water analyses, ensuring quality through pH, conductivity, chloride, silica, hardness, TDS, and alkalinity assessments.
- Maintained laboratory equipment through routine calibration, conducted data analysis and interpretation, and played a key role in internal audits, demonstrating strong organizational and communication skills.

LABORATORY TECHNICIAN (PLACEMENT STUDENT)

SA Water, Australia/ October 2015 – December 2015

- Processed samples for metals testing, ensuring accurate and timely results.
- Registered and tracked samples in the Laboratory Information Management System, maintaining data integrity and traceability.
- Conducted a variety of physicochemical analyses of wastewater, including pH, conductivity, and turbidity, using standard methods and procedures.
- Assisted in equipment maintenance and troubleshooting.

EDUCATION

- **CHEMICAL ENGINEERING TECHNOLOGY**
Cambrian College, Sudbury, ON.
September 2020 – December 2022
- **DIPLOMA IN GEOTHERMICS**
United Nations University Geothermal Training Program (UNU-GTP)
August 2016-December 2016.
- **DIPLOMA OF LABORATORY TECHNOLOGY.**
Technical and Further Education, South Australia.
January 2014 – January 2016

TRAINING

- **ISO 17025:2017 INTERPRETATION AND IMPLEMENTATION IN TESTING LABORATORIES**

Completed a comprehensive training program covering the requirements and guidelines of the ISO 17025 standard for testing and calibration laboratories. Developed familiarity with laboratory quality management systems, documentation and record-keeping, and proficiency testing.

- **ISO 9001:2015 INTERNAL AUDITOR TRAINING (INTERTEK/EXEMPLAR GLOBAL)**

Completed a 3-day internal auditor training program covering management systems auditing and quality management systems under ISO 9001:2015 standards. Recognized by Exemplar Global with CEUs awarded.

- **STATISTICS APPLIED TO TESTING LABORATORIES – QUANTITATIVE (ISO/IEC 17025 FOCUS)**

Completed a course-workshop on applied statistics for testing laboratories, covering hypothesis testing, normality and outlier detection, and statistical methods for comparison and association aligned with ISO/IEC 17025:2017.

- **SPILL RESPONSE TRAINING (F.A.S.T. RESCUE INC.)**

Completed both theoretical and practical training in environmental spill response. Gained knowledge in proper procedures for containment, reporting, and clean-up of hazardous materials. Valid through 2028.

- **WHMIS CERTIFICATION**

Acquired in-depth knowledge of identifying, handling, and communicating hazardous materials. Interpreted safety data sheets, recognized hazard symbols, and implemented safety protocols.

OTHER COURSES

- **PREPARING DATA FOR ANALYSIS WITH MICROSOFT EXCEL.**

Successfully completed a comprehensive course focusing on data preparation techniques using Microsoft Excel. Acquired practical skills in data cleaning, formatting, and structuring for effective analysis.

- **PROGRAMMING AND DATABASE CONCEPTS FOR DATA ANALYSIS**

Acquired practical skills in Python and R programming (control structures, OOP, file handling, data visualization) and relational databases, including SQL for data manipulation, querying, and database design in analytical contexts.

TECHNICAL SKILLS

- **Analytical Thinking and Problem Solving:** Skilled in analyzing complex problems and finding effective solutions.
- **Proficient in Microsoft Excel:** Skilled in using filters, PivotTables, Macros, and Power Query.
- **Language Skills:** Proficient in spoken and written English; native Spanish speaker.
- **Holder of a Full G Driver's License.**

SOFT SKILLS

- **Resourceful Problem Solver and Organizer:** Skilled at finding solutions to challenges, efficiently managing tasks, and prioritizing work to ensure productivity and goal achievement.
- **Collaborative Team Player:** Effectively collaborates within teams, fostering a positive and cooperative work environment.
- **Proactive Learner with Strong Work Ethic:** Actively seeks opportunities for personal and professional growth, embracing new knowledge and skills with enthusiasm, while demonstrating dedication and reliability in delivering high-quality results.

REFERENCES

Academic, professional, and personal references can be provided upon request.