Corporate Social Responsibility Report 2018-19

ABOUT SRC

OVERVIEW

The Saskatchewan Research Council (SRC) is one of Canada's leading providers of applied research, development and demonstration (RD&D) and technology commercialization.

With over 340 employees, $70 million in annual revenue and over 72 years of RD&D experience, SRC provides research, development, demonstration, commercialization and testing services to its 1,400 clients in 23 countries around the world.

SRC focuses efforts on the mining, minerals and energy sectors, and the environmental considerations that are important across each sector.

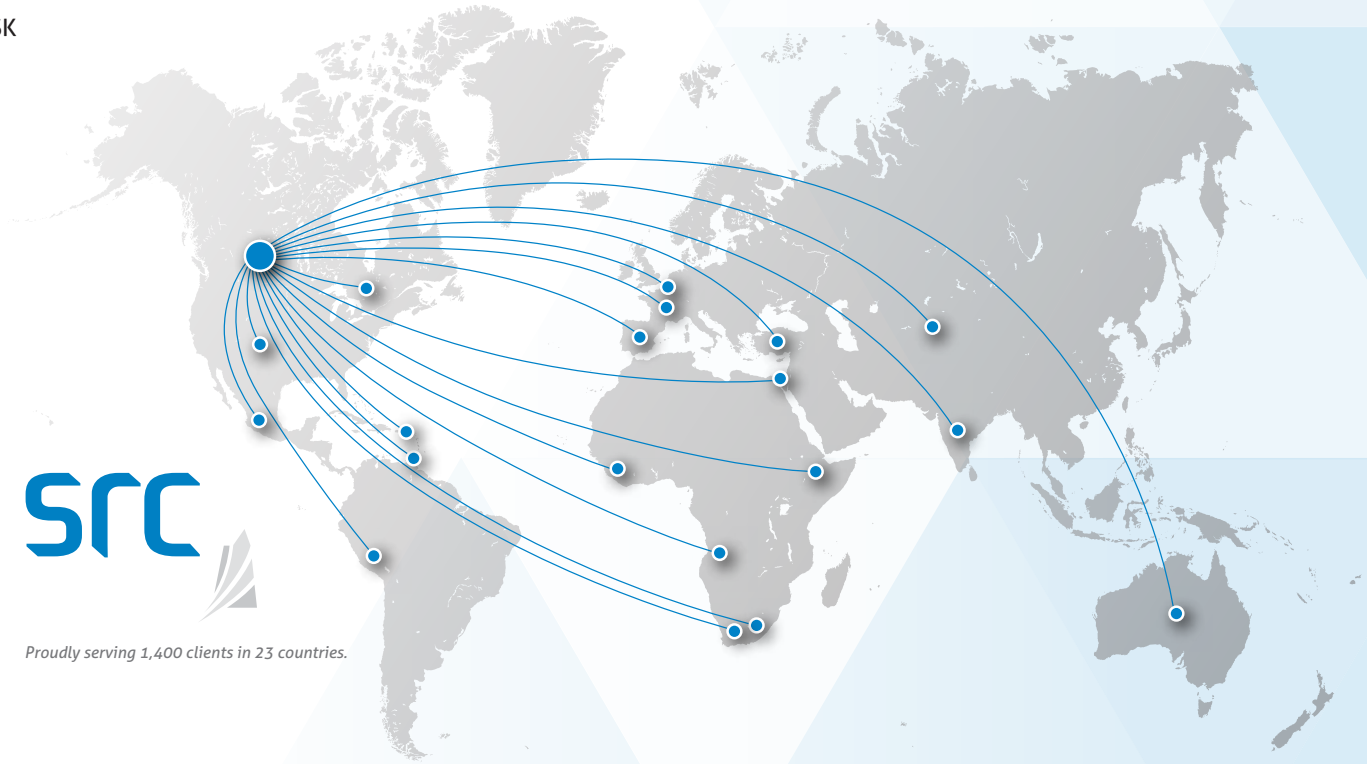
SRC has locations in:

Saskatoon, SK (headquarters)
Regina, SK
Uranium City, SK
Calgary, AB

IMPACTS

SRC's 2018-19 annual economic impact assessment demonstrates:

- SRC achieved more than $489 million in direct economic benefit to Saskatchewan.
- Its work created or maintained over $84 million worth of jobs.
- SRC undertook more than $48 million in projects aimed at creating positive environmental and social impacts.
- Its work for clients contributed to reducing at least 22 kt per year of greenhouse gas emissions and saved over 40 million kWh per year of energy.



Proudly serving 1,400 clients in 23 countries.

RECOGNITION

During the 2018-19 fiscal year, SRC and its employees received the following awards and recognition:

- SRC was recognized in the 2018 list of Best Workplaces in Canada by the Great Place to Work® Institute Canada, and certified by the same organization.
- Elizaveta Petelina, Environmental Remediation Specialist, officially received the *Distinguished Agrologist Award* from the Saskatchewan Institute of Agrologists on April 12th, 2018. This award is presented to Saskatchewan agrologists for professional distinction with respect to outstanding service and worthy contributions to agriculture, bioresources, food or the environment.
- On May 31st, 2018, Elizaveta received the Saskatoon YWCA's Women of Distinction Award in the Research and Technology category. This award recognizes her for her excellence, innovation and leadership working with Project CLEANS (Cleanup of Abandoned Northern Sites) and the Saskatoon Open Door Society.

- SRC ranked first on the Corporate Knights Future 40 Responsible Corporate Leaders list. This is the fifth consecutive year SRC has been recognized on the list for its positive impacts and responsible practices, and the first time it has been awarded the top spot.

- The Take Action on Radon Coalition, of which SRC is a member, received a certificate of appreciation (see photo above) by the Lung Association of Saskatchewan at their first Breathe Impact Awards ceremony.
- The Safe Saskatchewan organization recognized SRC as the 1st Place 2018 Mission: Zero Award Winner in their Large Employer category.
- Ryan Spelay and Reza Hashemi from SRC's Pipe Flow Technology Centre™ co-authored a paper with Sean Sanders of University of Alberta and Bjorn Hjertaker of University of Bergen, which placed third for the Best Paper Award at the 9th World Congress on Industrial Process Tomography.

Elizaveta Petelina received the Distinguished Agrologist Award and the Saskatoon YWCA's Women of Distinction Award

- Thomas Lavergne, an Associate Environmental Engineer in SRC's Environmental Remediation Business Unit, was among 30 other young professionals from across Canada recognized in Corporate Knights' Top 30 Under 30 in Sustainability issue. The magazine promotes sustainable business practices and puts a spotlight on young adults who lead positive change in their workplace and community.
- SRC was named among Canada's Top Employers for Young People in January 2019. This is the third year SRC has made the list, which recognizes organizations that help young people excel in their careers.
- SRC received an award for Excellence in Immigrant Integration at the Annual Diversity Awards Gala, hosted by the Saskatoon Open Door Society on February 7th, 2019. The awards celebrate local companies who demonstrate leadership in workplace diversity and inclusive attitudes toward new immigrants.
- For the fourth year in a row, SRC was named to Saskatchewan's Top Employers list for 2019.

GOVERNANCE

The Saskatchewan Research Council (SRC) is a Saskatchewan Treasury Board Crown Corporation governed by The Research Council Act. Within this framework, the Board of Directors (Board) formulates policy and delegates the responsibility and authority for the ongoing management of the corporation to the President and CEO.

VALUES AND ETHICS

SRC has adopted a set of Values and a Code of Conduct and Ethics that set standards for ethical behavior at SRC.

SRC values safety, diversity, creativity, excellence and unparalleled service to clients and colleagues.

SRC's core values are:

Integrity: We deal with people and organizations honestly and ethically.

Respect: We treat people, property and the environment with respect.

Quality: We deliver quality to clients and colleagues.

One Team: We work together in the best interests of SRC.

All employees and SRC's Board of Directors are expected to conduct themselves in accordance with SRC's Code of Conduct and Ethics. Employees and Board Members are required to review and sign the Code upon appointment and re-sign annually.

Employees can seek advice from, or report unethical and unlawful activities to Vice-Presidents, the CEO or the Chair of SRC's Audit and Finance Committee, either verbally or in writing. Employees can also contact an independent third party through SRC's whistleblower hotline.

ECONOMIC PERFORMANCE

Economic Highlights:

OVERVIEW

$70 MILLION IN ANNUAL REVENUE

ONE OF CANADA'S LEADING RESEARCH & TECHNOLOGY ORGANIZATIONS

23 — 1,400 CLIENTS IN 23 COUNTRIES

OVER **340** EMPLOYEES

72 YRS OF RD&D EXPERIENCE

ECONOMIC PERFORMANCE

$9 BILLION IN IMPACTS SINCE 2003

TOTAL IMPACTS ON PROVINCIAL ECONOMY: **$573** MILLION

$489 MILLION IN DIRECT ECONOMIC BENEFITS

$84 MILLION VALUE OF JOBS CREATED/MAINTAINED

24X — **24-TIMES** RETURN ON PROVINCIAL INVESTMENT

ENVIRONMENTAL PERFORMANCE

HELPED REDUCE CLIENTS' EMISSIONS BY MORE THAN **22 kt**

81% OF PROJECT EXPENSES WERE AIMED AT CREATING POSITIVE SOCIO-ENVIRONMENTAL IMPACTS

HELPED SAVE CLIENTS MORE THAN **40 MILLION kWh** IN ENERGY

SOCIAL PERFORMANCE

MORE THAN **7,700** HOURS OF SKILLS AND SAFETY TRAINING

LOST-TIME INJURY RATE OF **0.37** PER **200,000** HOURS WORKED

SRC EMPLOYEES SUPPORTED **12** COMMUNITY GROUPS

ENVIRONMENTAL PERFORMANCE

Environmental Highlights:

- SRC undertook more than $48 million in projects aimed at creating positive environmental and social impacts.
- Work for clients contributed to reducing at least 22 kt per year of greenhouse gas emissions and saved over 40 million kWh per year of energy.

Employees participated in Bike to Work Day Saskatoon and Commuter Challenge Week

- A total of 20 employees participated in Bike to Work Day in Saskatoon in May 2018. Three individuals also participated in Winter Bike to Work Day in January 2019.
- SRC employees once again participated in the Commuter Challenge in June 2018. A total of 43 employees participated, saving 153 L of fuel and avoiding 339 kg of CO_2 emissions over a one-week period. In the last six years, SRC employees have saved 2,288 L of fuel and avoided 5,197 kg of CO_2 emissions by commuting sustainably during this week-long, yearly event.
- SRC completed a Saskatchewan Flood and Natural Hazard Risk Assessment for the Saskatchewan Ministry of Government Relations, released in October 2018. The project involved compiling information on natural hazards and developing a risk assessment methodology to inform risk-reduction strategies and hazard-mitigation measures.
- Through the sale or donation of unused equipment and furniture, SRC avoided 7.76 tonnes of landfill disposals.
- SRC participated in a compost pilot project with Innovation Place in Saskatoon. Compost bins at SRC Environmental Analytical Laboratories allowed employees to dispose of plant matters such as fruits, vegetables as well as coffee and tea in a responsible manner. These items biodegrade quickly and can be kept out of the landfill.
- Renewable Rides is the first of its kind in Canada: a car-share program, with electric vehicles (EV), powered by 100% solar energy, for anyone to use in Saskatoon. In September 2018, four electric vehicles were shared around Saskatoon. SRC's role in the project is to monitor data, which is expected to increase consumer confidence in EV technology.

Ryan Jansen, Senior Research Engineer speaks at the Renewable Rides news conference in Saskatoon, SK

" By capturing and analyzing a wide array of data from both the vehicles and the charging stations, SRC will assess how electric vehicles could best be utilized in a Saskatchewan context," says Ryan Jansen, Senior Research Engineer at SRC. "Our unique prairie climate creates both challenges and opportunities related to transportation and energy management. We are excited to further explore and understand how these vehicles can impact smart grid systems."

Creating a Sustainable Habitat: Protecting Biodiversity in a Remediation Project

The following story by Elizaveta Petelina, Environmental Remediation Specialist, originally appeared on SRC's blog.

Since ancient time, humans have depended on various ecosystem services, such as food, clean water, construction materials, medicinal ingredients, pollination and recreation. These vital services are only available to us because there are millions of species connected to each other in various ways and creating different ecosystems which sustain human life.

This is biodiversity. Unfortunately, overall biodiversity on our planet is declining rapidly. This undermines the stability and resilience of ecosystems and may have a drastic impact on our well-being.

Petelina at an abandoned mine site

WHY IS BIODIVERSITY IN DECLINE?

One of the main drivers for the declining global biodiversity is a loss of natural habitats due to human activities, such as agriculture, industry and infrastructure. Environmental remediation can slow down biodiversity loss by recovering or significantly improving degraded, damaged or destroyed ecosystems.

CASE STUDY: BIODIVERSITY AT ABANDONED MINE SITES

I'm part of a team that is responsible for remediating 37 uranium mine and mill sites, a project called Project CLEANS (Cleanup of Abandoned Northern Sites). The sites were used for uranium exploration and extraction in the early 1950s and were mostly abandoned by the mid-1960s with little to no remediation.

As a result, the wildlife habitat was significantly altered. The affected sites not only pose different hazards for the environment and surrounding communities, but also have low biodiversity and poor appearance.

Our team is in charge of the impact assessment, finding ways to improve on-site environmental conditions and implementing other remediation activities. We remove the barriers preventing local wildlife from using the sites and help foster biodiversity growth in the area.

SUSTAINABLE REMEDIATION

Remediation activities can have negative impacts on wildlife and vegetation. Construction at site can deteriorate aquatic habitats, disturb wildlife breeding periods or destroy rare plant species and migratory bird nests.

A sustainable approach to remediation focuses not only on the final site condition, but also on properly planning and implementing environmental protection throughout the entire remediation process.

ENVIRONMENTAL SURVEYS AND MONITORING

Environmental protection planning for the Project CLEANS team always starts with wildlife and vegetation surveys in an area affected by remediation activities. Environmental surveys are performed by professional biologists and comprise an inventory of valuable species present in the area and determine how remediation may impact local wildlife and their habitat.

Based on these surveys, we develop corresponding mitigation measures and wildlife protection plans to protect rare plants.

In some cases, destruction of rare species is unavoidable (e.g., they grow in a contaminated area which must be cleaned up). In this case, an additional risk assessment is done to estimate the impact and how it compares to the remediation benefits.

We work with environmental monitors for large-scale remediation projects to ensure effective biodiversity protection during remediation activities. The environmental monitors are responsible for monitoring wildlife activities in the area, such as migratory bird nesting or breeding habitats. They also provide guidance on site clean-up in case of a spill.

I think the most important role of environmental monitors is to provide on-site workers with information about local wildlife and vegetation, and what they should do (or not do) to protect the local environment.

USING THE RIGHT REVEGETATION TECHNIQUES

The final stage of site remediation is revegetation. The goal of revegetation is to create a habitat suitable for local wildlife. Using proper revegetation techniques are key for revegetation success. SRC's remediation team use passive and active revegetation techniques.

Passive revegetation is based on creating favourable conditions for site recovery without additional planting or soil treatment. For example, small sites with favourable soil conditions can recover quickly on their own. On the other hand, recovering large areas with poor soil conditions may require extensive soil treatments and planting.

When **active revegetation** is required, selecting proper plant species should be considered based on the ecosystem. In the past, many revegetation projects used aggressive exotic species grown rapidly in open areas. This approach provides fast visual results, but is not sustainable at the ecosystem level.

Exotic species can not only prevent native vegetation from growing in the area, but they can also spread to competing native plants in neighbouring ecosystems. A shift in the vegetation community could affect local insects, birds and mammals whose survival depends on local plants. A sustainable approach to site revegetation requires planting native plant species.

CHOOSING THE RIGHT SEEDS

Seed mixtures must address the diverse needs of local wildlife. Our seed mixtures always include flowering plants to support local pollinators. They also include nitrogen fixing plants which have a positive impact on soil biota, increase soil nutrient and organic matter content, improve soil structure by their root system and create favourable conditions for establishing other plant species. Adding grass species to the site attracts geese, moose, rodents and seed eating birds.

Another challenge is finding the right density for seeding. A cover that is too dense with several native plants can prevent us from introducing new plant species to the site. While a cover that is too sparse may compromise erosion control and the ecosystem may take too long to recover. Careful planning of what to (and how to) plant on a site is essential for promoting local biodiversity.

When I completed revegetation at my first site, I was amazed to see how our efforts boosted biodiversity there. I remember the site before remediation when it only had a few dying plants and little signs of wildlife.

Ten months after revegetation, there were many insects, birds and mammals who took immediate advantage of the improved site conditions.

This was one of the most exciting experiences in my life, as I could see the results of the team's contribution in protecting regional biodiversity.

PLANNING BEFORE THE WORK STARTS

Remediating a contaminated site may have positive and negative impacts on biodiversity. On one hand, remediation is intended to promote biodiversity by improving conditions and creating wildlife habitat on contaminated sites.

On the other hand, it may have a negative impact on local species. This can be prevented by properly planning and implementing environmental protection measures, and through proper revegetation planning.

If remediation is completed in a responsible and sustainable way, it will help recover local biodiversity without compromising ecosystem integrity.

A Triple Threat: Canada's First Utility-scale Hybrid Energy Storage System

This story first appeared on SRC's blog.

The variability of wind and solar poses a challenge to anyone hoping to launch renewable energy projects. By combining multiple renewable sources, projects can come alive.

Wind is the perfect example of this variability. However, there's another abundant energy source that can pick up much of the slack: sunshine!

Thankfully, Saskatchewan has a lot of it.

In cooperation with Cowessess First Nation, SRC has directed the installation of 1,134 new solar panels at the Cowessess Renewable Energy Storage Facility — a high-level wind turbine and energy storage project originally commissioned in 2013. This expansion, or second phase, builds on the facility's initial success, one that started as a research project and is now creating economic impacts. With the solar addition, SRC will continue to evaluate the system's performance over the next year of operation and to validate its capabilities.

Cowessess Renewable Energy Storage Facility near Regina, SK

The facility marks the first known utility-scale, hybrid wind-solar-storage system in Canada, and one that paves the way for further research in renewable energy generation.

HOW THE SYSTEM WORKS

The existing facility is already equipped with an 800 kW Enercon wind turbine and a SAFT lithium-ion battery system capable of providing 400 kW for 90 minutes. The solar expansion – an addition of solar photovoltaic panels covering roughly one hectare of land – provides 340 kW in addition to the wind turbine and battery, as well as 56.7 kW to power the facility itself.

In total, the facility produces 2,828 mWh per year, enough to supply power to 344 homes.

Because wind speeds are highly variable, power output can change from 600 kW to zero in less than five minutes. This is where the battery steps in by smoothing volatility. Electrical energy can be stored and used when the wind is not blowing or when the sun isn't shining.

WHY COMBINE WIND AND SOLAR?

Wind and solar are popular examples of low carbon power generation technologies, and both perform well in Saskatchewan's environment. However, wind and solar alone cannot replace our carbon-based electrical generation system due to the variability of these energy sources. Wind and solar combined can complement each other, providing a more continuous and predictable energy supply.

Adding a battery to the mix takes it even further by limiting variability and allowing energy to be dispatched when needed. The hybrid system addresses the intermittency challenges of renewable generation and allows for greater displacement of carbon-based electrical generation.

The Cowessess Renewable Energy Storage Facility was originally built with the option to connect additional power sources. With the addition of solar generation to the facility, it's expected that the economic return will continue to grow while demonstrating hybrid power and storage on a utility-scale rarely seen.

SRC continues to support facility operations as a technical advisor, training Cowessess employees on maintenance and gathering long-term operational data to monitor solar, turbine and battery efficiency.

Beyond providing electricity to Saskatchewan homes, the facility also generates interest in renewables and their potential to provide clean, reliable energy for the future.

SOCIAL PERFORMANCE

Safety Highlights:

- In early May, SRC celebrated North American Occupational Safety and Health (NAOSH)/Emergency Preparedness Week 2018 with a variety of events, activities and contests that focused on safety-related topics. Activities included a rollover simulator presentation which demonstrated the hazards of not wearing a seat belt when driving. Fire extinguisher training took place as well as a Ball Hockey/Soccer/Volleyball Tournament.
- In August 2018, SRC's 100th SPOT report was created. Using the SPOT (Safety: Prevention by Observation Tool) app helps employees to ensure a safe workplace by identifying hazards, so they can be eliminated or reduced before an incident occurs.
- In December 2018, SRC had a Twelve Days of Holiday Safety campaign targeted to employees, which provided daily tips for keeping safe outside the workplace during the winter holidays.
- Ten full-day defensive driving courses were delivered to employees who need to drive as a part of their job requirements.
- Employees spent a total of 1,916 hours engaged in safety training throughout the year – an average of 5.7 hours per person!
- SRC strives to keep its lost-time injury rate as close to zero as possible. In 2018-19, SRC had a lost-time injury rate of 0.37 per 200,000 hours worked.
- Members of the Environmental Remediation Business Unit participated in predator training to equip themselves with skills when working in remote, northern environments.

Above: NAOSH sports day

Middle: NAOSH fire extinguisher training

Predator training

Community Involvement Highlights:

- In April 2018, SRC had an interactive display at Agriculture in the City, an annual public event that shows how agriculture plays a role in everyday life.
- SRC's Environmental Remediation Business Unit and external contractors held a barbecue in recognition of National Indigenous Peoples Day on June 21. Employees from SRC's Geoanalytical Laboratories also attended the Rock Your Roots Reconciliation Walk.
- Aboriginal Mentorship Program (AMP) students and mentors volunteered at a Boys and Girls Club of Saskatoon summer day camp, leading participants through science, technology, engineering and math activities.

AMP students volunteering at Boys and Girls Club Saskatoon

- Students from Saskatchewan Polytechnic stopped at an SRC laboratory as part of the Amazing Biotech Race, where they had to complete a challenge pipetting coloured water in a predetermined pattern before they could move to their next challenge.

Rock Your Roots Walk

The Amazing Biotech Race

- In October 2018, SRC's Finance Division collected donations of pet supplies for the Saskatoon SPCA and clothing for the YWCA Opportunity Shop in Saskatoon.
- An employee from our Environmental Analytical Laboratories worked with her community association to offer a program called Little Scientists in fall 2018. The eight-week course featured different science experiments and was so well-received by children and parents that it was offered a second time in winter 2019. SRC supported by providing materials for several experiments.

"Hello, my name is Jana Kinar and I am the president of the Lakeview Community Association. The children's coordinator, Afshan, has been in touch with you about our Little Scientist program this year. I wanted to extend my gratitude to you for helping us out this year with curriculum ideas and supplies. It is greatly appreciated! This class has been a huge success and I am looking forward to being able to offer it again. Afshan has done a tremendous job for the LCA by bringing in new ideas such as this class and we could not have done it without your help."

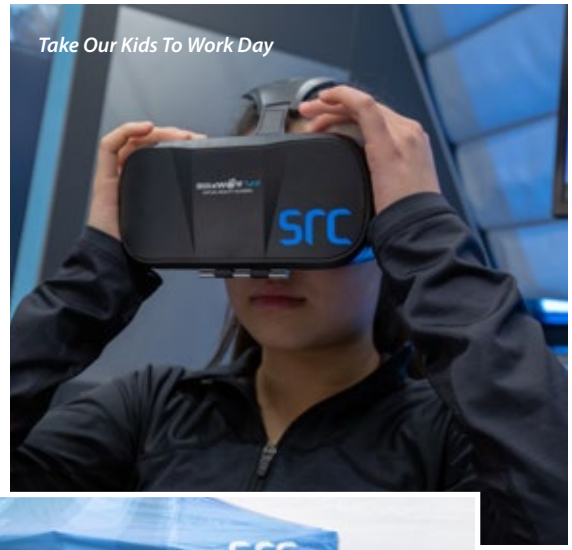
Food Bank donations

- In November 2018, SRC employees donated over 350 food items for the Saskatoon, Regina and Prince Albert Food Banks.
- SRC's Environmental Analytical Laboratories raised $958 for the Saskatoon Crisis Nursery, an organization that provides care for children in times of family need.
- Employees from Geoanalytical Laboratories collected feminine hygiene products for the United Way of Saskatoon's Tampon Tuesday, an initiative to distribute these products to women in need in the community.
- When Project CLEANS (Cleanup of Abandoned Northern Sites) required trees to be removed and disposed, team members cut them into logs and gave firewood to Elders in Uranium City, SK.

Project CLEANS firewood for Elders

Employment Highlights:

- SRC's Aboriginal Mentorship Program connects Indigenous post-secondary students in science, technology, engineering and math disciplines with mentors at SRC and provides them with targeted work experience to help take their education and knowledge to the next level. In 2018, SRC welcomed a record seven students into the program. This included two firsts for the program: three students returned from the previous year and another three joined the program from Regina.
- In November 2018, SRC welcomed employees' children participating in Take Our Kids to Work Day, an annual career education event for Grade 9 students.
- Through Mitacs, a not-for-profit organization that supports research in Canada, three graduate students worked as interns at SRC.
- SRC's Environmental Remediation Business Unit had a volunteer employee through a mentorship program facilitated by the Saskatchewan International Association.
- The Environmental Remediation Business Unit had three participants in its Student Environmental Monitoring Program, a one-week training and job shadowing program.
- In 2018-19, SRC launched the Site Rep Trainee Program through Environmental Remediation, which trained two individuals employed at SRC to be superintendents.
- Employees participated in 5,818 hours, or an average of 17.2 hours per person, of skills training in 2018-19.



Take Our Kids To Work Day

AMP Students Visit Batoche

- Employees have the potential to pursue further education through both financial support and non-financial support. There are currently 15 employees receiving funding and both paid and unpaid time off to acquire further education ranging from certificate programs to undergraduate, masters and PhD levels.
- SRC coordinated several lunch and learns with a focus on health and wellness. This included a nutrition lunch and learn, in which a dietician visited to educate about what dieticians do, why nutrition is an important piece to overall health and wellness and how to work toward optimal nutrition through the work week with tips and meal/snack ideas. In another session, a counsellor provided information about seasonal affective disorder and strategies that may help to reduce symptoms of the disorder.
- SRC employees have access to LifeSpeak, an online library of health and wellness videos. In 2018, SRC actively promoted LifeSpeak's mental health campaigns, which included modules focused on mental health and self-care.

THINKING ABOUT A CAREER IN SCIENCE?

Here's what some geoscientists and engineers at SRC have to say.

This story first appeared on SRC's blog.

There's no rule that you must be born with math and science skills to pursue a career in engineering; it's all about persistence, and a deep desire for learning new things and discovering how they work.

At SRC, we celebrate the careers and contributions of our professional engineers and geoscientists annually in March as part of Engineering and Geoscience Week in Saskatchewan. We had a chat with a few of our own at SRC to learn more about what drew them to their careers.

Here's what we found out about the type of work they do, and what it's like to live a life of science.

Centre for the Demonstration of Emissions Reductions mobile facility

Collecting water samples at abandoned mines sites in northern SK

Analyzing samples at SRC Geoanalytical Laboratories

Patty Ogilvie-Evans

Professional Geoscientist, Environmental Remediation

Tell us about your work as a professional in your field.

I work with the Environmental Remediation team on Project CLEANS (Cleanup of Abandoned Northern Sites) as a geoscientist and senior technical advisor. Most of what I do is with satellite sites—the old, underground and historical legacy mine sites. I go through old files, trying to find, historically, how the underground mine workings are laid out. It's important to know where they are so we can approach it in a safe manner. We go on site, we know where the openings are.

Second, because these sites are around 50 years old, vegetation can cover up these openings making it difficult. We need to make sure that we're closing all these opening for public safety. We also assess the underground in terms of ground disturbance or thin crown pillars (a layer of rock above a mine stope), which can be dangerous or cause potential problems down the road.

What inspired you to make geoscience, specifically environmental remediation, your career?

When I applied for the job I had known a little bit about the old mine sites in the Uranium City area. And I knew of Gunnar, so I was really fascinated with these legacy sites. They are often assessed from a surface point of view, but we should also be approaching them from the underground realm. It's beneficial to know what is underground, what the geologists were going after back in the 1950s or 60s, and which way the underground workings travelled. I knew I could fill that niche where a lot of environmental folks may not think this way—they may not think like a geologist.

Patty Ogilvie-Evans

How were you first drawn to the world of geoscience?

I was always fascinated with all the earth processes: everything from volcanoes to earthquakes, to even just the glaciation that we saw here in Saskatchewan.

Going out to the mountains, seeing their structure, wondering how they were formed—that really drove my scientific curiosity. Right from an early age, I knew I wanted to be a scientist.

It wasn't until I was more of an adult, a little more mature, that I really dove into it and pursued my four-year Bachelor of Science degree here in Saskatchewan.

What is the most rewarding or memorable project you've worked on at SRC?

On one of the sub-projects I've worked on, what I found I really enjoyed was finding historical information. I dabbled a bit when Laurie Schramm, SRC's President and CEO, was writing the book Gunnar Uranium Mine: Canada's Cold War Ghost Town. We explored the historical more when we were trying to build a model of the Gunnar pit and the underground workings, so I was really drawn into it and the idea that we could share a three-dimensional recreation of the mine's underground workings and what they look like to community and team members. That was a lot of fun!

Working at Nicholson Mine was also very fascinating because it was one of the first sites where uranium was found in Saskatchewan. Being on that site, walking around, seeing the old dilapidated buildings and thinking of the history that drove prospectors and geologists there, I was really drawn to that. In writing a book about Nicholson Mine with Laurie, we found so much information to help the remediation of the satellite sites, which is ultimately our goal: clean them up, put them back and make them as safe as possible.

What is the best part about your day-to-day work?

Probably the people I work with. Project CLEANS is a relatively small team, about twenty of us. It's an amazing group. We all have a diverse background, but we're all working toward the same goal. It's quite exciting and the best part of my day. It's a great team.

Erica Emery

Professional Engineer, Process Development

Tell us about your work here at SRC.

I'm a research engineer in the Process Development team, part of SRC's Energy Division in Regina, Saskatchewan. Process development—it's hard to describe. We typically help oil and gas clients. Our business unit handles thermal enhanced oil recovery—all the down-hole recovery, reservoir modelling, solvent injection kind of stuff.

But process development is a bit different. We deal with things that are above ground. We've done some oil and gas work in partial upgrading, but we've also done some very different work: electro-chemical work, catalyst development, alternative energy... kind of all over.

How did you find your way to a career in engineering?

I always did well in math and science in high school, and I didn't really know what I wanted to do when I got to university. It was suggested to me and sounded like a good idea. I kind of just fell into it. I found an interest in the process side of things, particularly in chemical engineering. How one thing leads to another is what interests me.

What is the most memorable or rewarding project you've worked on at SRC?

So many of my projects have been so different from each other, which is actually my favourite thing about working here: getting to work on a lot of different things. A lot of the recent work on SRC's Centre for the Demonstration of Emissions Reductions (CeDER) in methane emissions reduction is, I think, very important.

I've been doing quite a bit of scoping studies on different technology options to help oil and gas producers reduce their methane emissions which is pretty rewarding.

Erica Emery

You recently published a blog post about alternative recycling methods. Can you tell us about that?

The City of Swift Current was looking for options on what to do with recycled cardboard. Right now, they have a residential recycling program, but the cardboard is bailed up, sold and needs to be shipped, so they were concerned about the carbon footprint and whether that was the best use of the resource.

SRC did a scoping study on possible options for them. It looked at incineration, composting and lastly, gasification — which stood out as one of the best options. I became involved in the second phase, which was to look more closely at gasification and the economics of the situation.

What is the best part of your day-to-day work?

Definitely the variety of projects I'm involved in, and the people. It's a very nice group here. It's small, so we get to know everybody here pretty well and get to work together on a lot of different things.

Any words of encouragement for students considering engineering as a career?

It's not as hard as you think! A lot of engineers have a reputation for being extremely intelligent, like it's something they're born with. But I find the biggest thing about engineering is persistence. You just have to keep going.

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