

# Annual Report

Fiscal Year 2022/23





## Message from the BC OGRIS Board of Directors

Fiscal year 2023 was an especially active year for BC OGRIS due to our support of the PNG Legacy Sites Restoration Program (LSRP) that supported 9 restoration projects across 7 First Nation groups. The one-year program resulted in 154 km of restored linear features and plans drafted for further restoration of high priority areas once resources and funding are identified. Our eighth year of supporting the Aboriginal Liaison Program continued with 11 participants in 10 First Nations—helping enhance the monitoring of oil and gas activities and improve the collaboration and communication between industry, regulators and government agencies.

Our understanding of induced seismicity expanded with the completion of five research projects. A conference will be held in Calgary on June 9, 2023 to disseminate the findings to over 50 academics, consultants, regulators and practitioners.

Our next fiscal year promises to be just as interesting with our current restoration programs completing—the PNG Legacy Sites Restoration Program and the Treaty 8 Nations Restoration Fund. The Aboriginal Liaison Program is continuing as is our support of First Nation engagement in monitoring of water quantity in smaller watersheds of Northeast BC. We are continuing to work with the BC Oil and Gas Methane Emissions Research Collaborative (BC MERC) to study methane emissions related to the extraction, transportation, and processing of natural gas. Other projects anticipated to complete next year include the study of oxidation of methane in natural soils of B.C. and the agricultural productivity of soil on restored pipeline corridors.

The BC Oil and Gas Research and Innovation Society is an important piece of the oil and gas sector in British Columbia. Through a diverse range of projects and collaborations, the society is supporting research and initiatives to promote environmental stewardship, and long-term sustainability of the industry. Our commitment to science-based research in a collaborative, sector wide approach combined with good governance and quality assurance of our projects results in BC OGRIS's positive impact on the energy landscape of B.C.

Geoff Morrison  
Chair, BC OGRIS

### BC OGRIS Board of Directors

- Mike Fulsom—The Explorers and Producers Association of Canada (EPAC).
- Geoff Morrison—Canadian Association of Petroleum Producers (CAPP).
- Ines Piccinino—BC Energy Regulator (BCER).

# Annual Report on the BC OGRIS (2022/23)

## About BC OGRIS

The BC Oil and Gas Research and Innovation Society (BC OGRIS)<sup>1</sup> is a stand-alone organization which focuses on addressing knowledge gaps to inform environmental, operational and health and safety policy and industry practices related to oil and gas exploration and development in BC. BC OGRIS also supports the planning and implementation of environmental, operational and health and safety programs in the oil and gas sector of B.C.

As a not-for-profit society, BC OGRIS receives investments, funds research projects and initiatives and provides governance and quality assurance over projects we support.



This report summarizes BC OGRIS activities in fiscal year 2022/23. Key values of cross-sector representation, accountability and governance with low overhead combine to make BC OGRIS a valued research entity in the B.C. oil and gas sector.

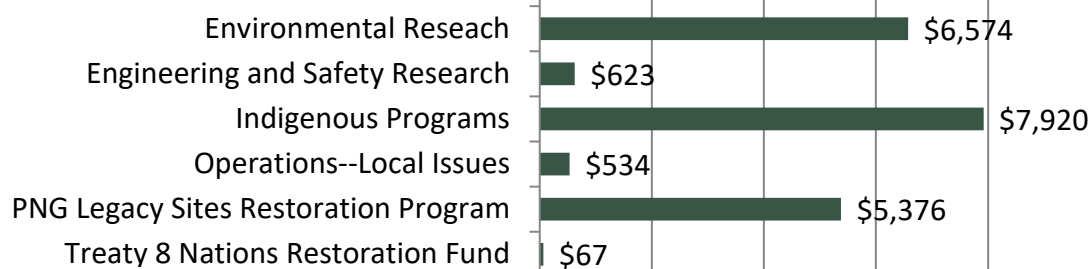
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<sup>1</sup> Formed in 2015, BC OGRIS carried on business previously conducted as the Science and Community Environmental Knowledge (SCEK) Fund.

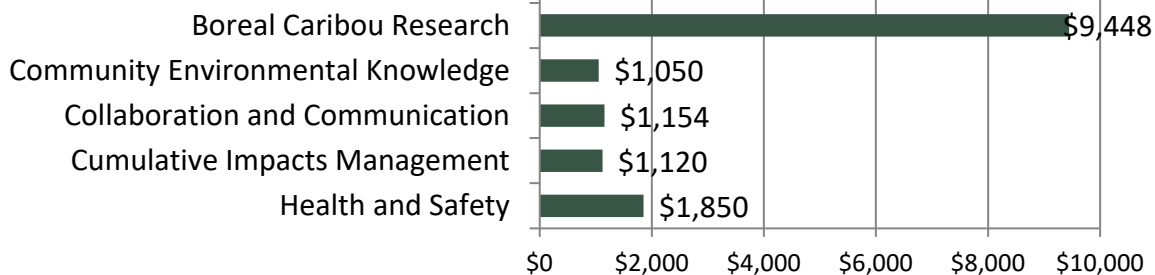
The chart below summarizes over 20 years of research investment since inception in 1999—initially as the Environmental Fund that evolved into the Science, Community and Environmental Knowledge (SCEK) Fund and now BC OGRIS.

### Investment To-Date (000's)\*

#### Current Funding Envelopes



#### Historical Funding Envelopes



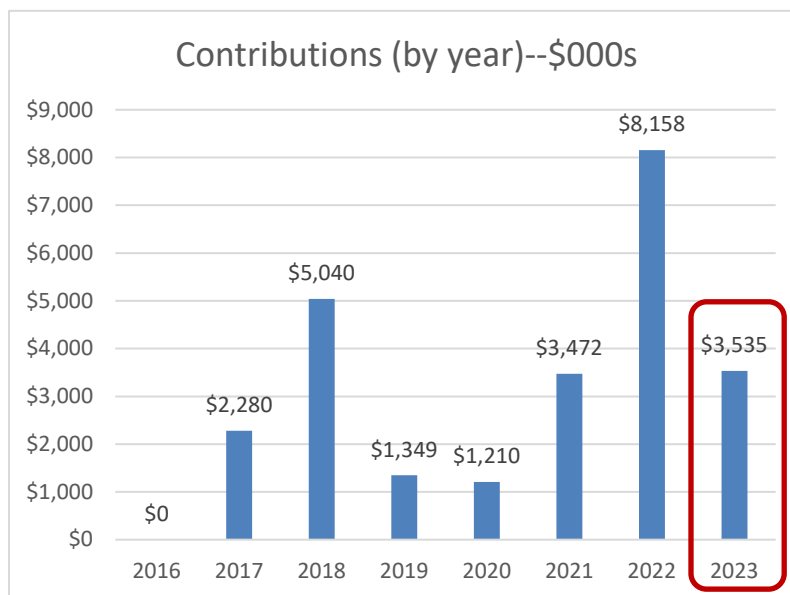
\* Since project expenditures commenced in 1999.

## Receive Investments

In 2022/23, BC OGRIS received contributions totalling \$3.5 million:

- The B.C. Ministry of Water, Land and Resource Stewardship provided contributions for specific initiatives in the Indigenous Programs funding envelope.
- The BC Energy Regulator (formerly the BC Oil and Gas Commission) provided a contribution for research in various topics under environmental research, engineering and safety, and seismicity.

The BC OGRIS Board of Directors targets a minimum of 95% of contributions going directly to projects and initiatives with the remainder covering financial and governance activities. This approach of minimizing overhead and fixed assets is attractive to our contributors as demonstrated by continued contributions year over year.



Note: 2022 also included a contribution of \$50 million for the Treaty 8 Nation Restoration Fund (not included in chart)



## Fund Research and Initiatives

BC OGRIS supports research initiatives in several funding envelopes. Envelopes for funding projects are described below. Information and deliverables from projects supported can be found at:

[www.bcogris.ca](http://www.bcogris.ca).



### Environmental Research

Addressing knowledge gaps related to the impact of oil and gas activities on methane and climate change, water, air and decarbonization—focused on data collection and avoiding, minimizing and/or mitigating the impact of oil and gas activities in these environmental areas.

In 2022/23, research focused on:

- **Methane**—supporting research identified by the BC Methane Emissions Research Collaborative—including completing a year long project to identify and quantify methane emissions at the source level and determine the root cause of each release. The next phase of methane research is envisioned to start in late 2023/24.
- **Water**—completing the establishment of ground water chemistry baselines and continuing with our 4th year of supporting the monitoring of streamflow in small watersheds.

## Project Funding Envelopes (cont.)

| Expenditures<br>(2022/23) (000s) | Projects<br>(2022/23) | Partnerships<br>(% BC OGRIS funding) | Future Commitments<br>(2023/24) (000s) |
|----------------------------------|-----------------------|--------------------------------------|--|
| <b>\$225</b>                     | <b>3</b>              | <b>100%</b>                          | <b>\$56</b>                            |

### Engineering and Safety Research

Addressing knowledge gaps in engineering and safety in the areas of pipelines, wells, facilities, and other related areas.

In 2022/23, research focused on:

- Studying the agricultural productivity of soil on restored pipeline corridors. This four-year study will complete in 2023/24.
- Studying the performance of plug and abandonment practices. This project will complete in 2023/24. A second project has spun off from findings of this project—studying the oxidation of fugitive methane in natural soils of Northeast B.C.

| Expenditures<br>(2022/23) (000s) | Projects<br>(2022/23) | Partnerships<br>(% BC OGRIS funding) | Future Commitments<br>(2023/24) (000s) |
|----------------------------------|-----------------------|--------------------------------------|--|
| <b>\$15</b>                      | <b>2</b>              | <b>83%</b>                           | <b>\$160</b>                           |

### Indigenous Programs

Building relations and common understanding by engaging Indigenous peoples in the oversight of resource development and management activities.

In 2022/23, BC OGRIS funding supported the following:

- Aboriginal Liaison Program—supporting 11 Liaison positions representing 10 First Nations in carrying out environmental monitoring programs including training for monitoring of disturbances associated with oil and gas development. This includes activities to improve collaboration and communication between industry, regulators, government agencies, and indigenous peoples to assist the First Nations community in understanding how the health and well-being of land, water, wildlife and air values are protected.
- Indigenous Restoration (Pilot) Projects—providing funding support for indigenous peoples to carry out pilot projects to build restoration knowledge and skills in culturally and environmentally appropriate restoration methods. This includes communication activities to explain the purpose and activities involved in restoration.

## Project Funding Envelopes (cont.)

| Expenditures<br>(2022/23) (000s) | Projects<br>(2022/23) | Partnerships<br>(% BC OGRIS funding) | Future Commitments<br>(2023/24) (000s) |
|----------------------------------|-----------------------|--------------------------------------|--|
| <b>\$1,285</b>                   | <b>12</b>             | <b>100%</b>                          | <b>\$1,568</b>                         |

### Operations—Local Matters

A funding envelope for researching and addressing local issues of an operational nature. This includes studies around air monitoring, seismicity, noise, light, traffic densities and other factors related to oil and gas activities at the local (community) level.

In 2022/23, research focused on

- **Seismicity**—working with the BC Seismic Research Consortium to carry out research to improve the understanding of induced seismicity and hydraulic fracturing. This includes a decade of supporting the Northeast BC Seismic Array Network in monitoring and reporting on seismic activity in areas around oil and gas activities. In 2022/23, BC OGRIS also supported five research projects with universities and recognized experts to deepen our understanding of induced seismicity—including modeling and analyzing seismic events, geohazards and geomechanical impacts. These projects will complete in 2023/24.
- **Air Monitoring**—BC OGRIS continued its ninth year of supporting an air monitoring station in Northeast BC. While the project shows that levels of common air pollutants associated with oil and gas activities are generally very low in the Peace region of B.C., the network continues to provide valuable information on air quality in the Farmington area of Northeast B.C.
- **Noise**—analyzing low frequency sound from gas processing and compression facilities considering distance (e.g., 1,000m and beyond) and meteorological factors (e.g., wind, season). This project will complete in 2023/24.

| Expenditures<br>(2022/23) (000s) | Projects<br>(2022/23) | Partnerships<br>(% BC OGRIS funding) | Future Commitments<br>(2023/24) (000s) |
|----------------------------------|-----------------------|--------------------------------------|--|
| <b>\$505</b>                     | <b>9</b>              | <b>100%</b>                          | <b>\$236</b>                           |



## Project Funding Envelopes (cont.)

### Restoration Research & Initiatives

#### **Petroleum and Natural Gas (PNG) Legacy Sites Restoration Programs**

Supporting restoration of legacy petroleum and natural gas seismic lines and other ancillary features in Northeast B.C. Nine projects in partnership and involvement with seven B.C. Treaty 8 First Nation were undertaken in 2022/23. Restoration projects incorporated both ecological and traditional knowledge in a manner that respected Indigenous culture and Treaty rights. Extension and project wrap-up activities will complete in 2023/24.

| Expenditures<br>(2022/23) (000s) | Projects<br>(2022/23) | Partnerships<br>(% BC OGRIS funding) | Future Commitments<br>(2023/24) (000s) |
|----------------------------------|-----------------------|--------------------------------------|--|
| <b>\$4,614</b>                   | <b>9</b>              | <b>100%</b>                          | <b>\$88</b>                            |

#### **Treaty 8 Nations Restoration Fund**

A partnership formed in 2022/23 to support a plan to manage and grant funds for multi-year, indigenous led land restoration activities in Treaty 8 Nations' traditional territory.

| Expenditures<br>(2022/23) (000s) | Projects<br>(2022/23) | Partnerships<br>(% BC OGRIS funding) | Future Commitments<br>(2023/24) (000s) |
|----------------------------------|-----------------------|--------------------------------------|--|
| <b>\$36</b>                      | <b>2</b>              | <b>100%</b>                          | <b>\$69</b>                            |

## Provide Governance and Quality Assurance

### Expenditures

Project expenditures in 2022/23 were \$5.8 million—an increase of 80% from the previous year's expenditures of \$3.2 million—largely due to BC OGRIS' support of the PNG Legacy Sites Restoration Program. Expenditures on management and administration increased by 40% to support the restoration projects undertaken and completed in the year.

The annual financial audit of the BC OGRIS was completed by external auditors. Copies of the audit statement and the audited financial reports are available on the BC OGRIS website at <http://www.bcogris.ca/about>.

### Governance

BC OGRIS is governed by a Board of Directors consisting of three directors. The Board of Directors met eight times in 2022/23 to select research investments and fulfil duties such as financial and administrative support services for research projects. The Board places a high value on good governance and maximizing the impact of our contributions by leveraging funding with partners and other research organizations while keeping BC OGRIS specific overhead at three to five percent of project expenditures. Quality assurance over research projects and initiatives to ensure appropriate and applicable research continues to be a high priority for the Board.

## Communications Activity

Research findings from BC OGRIS funded projects and initiatives are shared with organizations in the oil and gas industry as well as regulators and government agencies, indigenous peoples and other stakeholders.

Activities to communicate project and BC OGRIS wide information include the following:

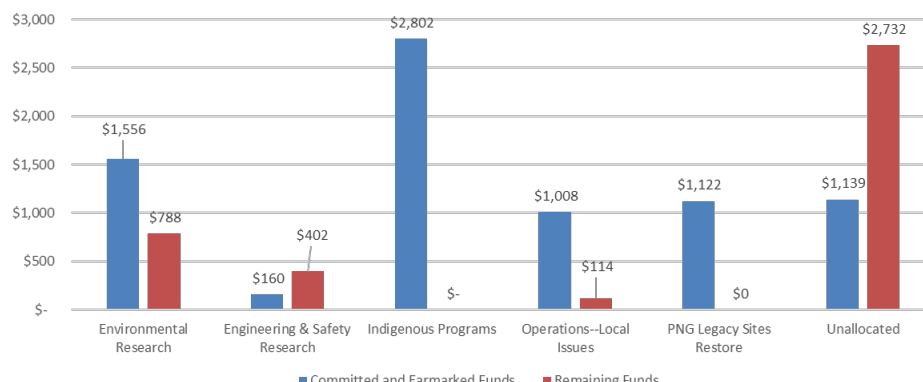
**BC OGRIS Annual Report**—reporting out to BC OGRIS members on the Society's research activities and accomplishments.

**BC OGRIS Website**—containing a listing of BC OGRIS projects and initiatives and their deliverables ([www.bcogris.ca](http://www.bcogris.ca)). In 2022/23 our website was upgraded and re-organized to raise the profile and access to information on the research we support.

**Project/Initiative Specific Communications**—disseminating project and initiative specific activities, findings and implications to applicable industry, regulator and government public interest policy and operations personnel (undertaken by the Researcher).

**Social Media**—disseminating information on projects and funding opportunities via social media.

## Plans for FY 2023/24

| Financial                     | <ul style="list-style-type: none"><li>Expenditures of \$6.8 million are committed to existing research and research requested by our funding partners.</li><li>A budget of \$4.0 million is unallocated and available for supporting new research.</li></ul>   |                          |  |                          |                        |         |       |                               |       |       |                     |         |     |                          |         |       |                          |         |     |             |         |         |
|-------------------------------|--|--------------------------|--|--------------------------|------------------------|---------|-------|-------------------------------|-------|-------|---------------------|---------|-----|--------------------------|---------|-------|--------------------------|---------|-----|-------------|---------|---------|
| Projects                      | <div><div>BC OGRIS--Committed and Remaining Funds (\$000s)<br/>(as of April 1, 2023)</div><table><thead><tr><th>Category</th><th>Committed and Earmarked Funds (\$000s)</th><th>Remaining Funds (\$000s)</th></tr></thead><tbody><tr><td>Environmental Research</td><td>\$1,556</td><td>\$788</td></tr><tr><td>Engineering &amp; Safety Research</td><td>\$160</td><td>\$402</td></tr><tr><td>Indigenous Programs</td><td>\$2,802</td><td>\$-</td></tr><tr><td>Operations--Local Issues</td><td>\$1,008</td><td>\$114</td></tr><tr><td>PNG Legacy Sites Restore</td><td>\$1,122</td><td>\$0</td></tr><tr><td>Unallocated</td><td>\$1,139</td><td>\$2,732</td></tr></tbody></table></div> | Category                 | Committed and Earmarked Funds (\$000s) | Remaining Funds (\$000s) | Environmental Research | \$1,556 | \$788 | Engineering & Safety Research | \$160 | \$402 | Indigenous Programs | \$2,802 | \$- | Operations--Local Issues | \$1,008 | \$114 | PNG Legacy Sites Restore | \$1,122 | \$0 | Unallocated | \$1,139 | \$2,732 |
| Category                      | Committed and Earmarked Funds (\$000s)   | Remaining Funds (\$000s) |  |                          |                        |         |       |                               |       |       |                     |         |     |                          |         |       |                          |         |     |             |         |         |
| Environmental Research        | \$1,556  | \$788                    |  |                          |                        |         |       |                               |       |       |                     |         |     |                          |         |       |                          |         |     |             |         |         |
| Engineering & Safety Research | \$160  | \$402                    |  |                          |                        |         |       |                               |       |       |                     |         |     |                          |         |       |                          |         |     |             |         |         |
| Indigenous Programs           | \$2,802  | \$-                      |  |                          |                        |         |       |                               |       |       |                     |         |     |                          |         |       |                          |         |     |             |         |         |
| Operations--Local Issues      | \$1,008  | \$114                    |  |                          |                        |         |       |                               |       |       |                     |         |     |                          |         |       |                          |         |     |             |         |         |
| PNG Legacy Sites Restore      | \$1,122  | \$0                      |  |                          |                        |         |       |                               |       |       |                     |         |     |                          |         |       |                          |         |     |             |         |         |
| Unallocated                   | \$1,139  | \$2,732                  |  |                          |                        |         |       |                               |       |       |                     |         |     |                          |         |       |                          |         |     |             |         |         |
|                               | <ul style="list-style-type: none"><li>Complete the current phase of our support of external committees undertaking restoration activities:<ul style="list-style-type: none"><li>PNG Legacy Sites Restoration Program (LSRP).</li><li>Treaty 8 Nations Restoration Fund.</li></ul></li><li>Maintain existing multi-year funding commitments.</li><li>Work with members to identify high priority knowledge gaps.</li></ul>  |                          |  |                          |                        |         |       |                               |       |       |                     |         |     |                          |         |       |                          |         |     |             |         |         |
| Communications                | <ul style="list-style-type: none"><li>Continue communication activities including an annual report, website and social media posts along with project specific presentations and media releases.</li><li>Carry out communication activities such as webinars, podcasts and conferences to showcase findings and implications of research projects supported by BC OGRIS.</li></ul>   |                          |  |                          |                        |         |       |                               |       |       |                     |         |     |                          |         |       |                          |         |     |             |         |         |





British Columbia Oil and Gas  
Research and Innovation Society

The BC Oil and Gas Research and Innovation Society (BC OGRIS) is a B.C. based not-for-profit society with membership from the BC Energy Regulator (BCER)—formerly the BC Oil and Gas Commission, Canadian Association of Petroleum Producers (CAPP), and The Explorers and Producers Association of Canada (EPAC).

## Vision

To continuously improve the understanding and management of the impacts of oil and gas activities in B.C.

## Mission

BC OGRIS supports practical studies and initiatives that develop credible and relevant information to address knowledge gaps to inform environmental, operational and health and safety practices related to oil and gas exploration and development in B.C.

BC OGRIS also supports the planning and implementation of environmental, operational and health and safety programs in the oil and gas sector of B.C.

## Contact Us

For further information, please contact the BC OGRIS at,  
PO Box 9331 Stn Prov Govt, Victoria, B.C. V8W 9N3.

[www.bcogris.ca](http://www.bcogris.ca)

[info@bcogris.ca](mailto:info@bcogris.ca)

## In Closing

From our beginning in 1999, we have supported over 215 projects ranging in size from short studies and reports to multi-year projects and initiatives involving multiple researchers and organizations.

We thank all our stakeholders, researchers, technical reviewers and administration team for their assistance in delivering these research projects and initiatives. Your support and assistance enable us to meet our goals and deliver findings that address important knowledge gaps in environmental, technical and social aspects of oil and gas development in B.C.

Comments and questions on this report and/or the BC OGRIS can be sent to [info@bcogris.ca](mailto:info@bcogris.ca).