



2021

Sustainability at CNOOC International

CANADIAN REPORT

Table of Contents

Our 2021 Sustainability Report is a journey through how we deliver on our commitment to social and environmental sustainability.

Who We Are	3
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Letter from the CEO	5
----------------------------------	----------

Delivering Results, Safely	6
---	----------

Community Matters	8
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Minimizing Impacts to the Environment	11
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Who We Are: Our Business at a Glance

CNOOC International operates in the Americas, Asia, Africa, the Middle East and Europe.

In Canada, our operations are spread across three provinces and vary from resource type to development stage. Our oil sands operations, located south of Fort McMurray in Alberta, are a key part of our parent company's global portfolio. Also in Alberta is the Balzac Power Station and the Soderghen Wind Farm — a renewable project in which we are a 50% partner. We also have shale gas assets in Northeast British Columbia.



Long Lake Oil Sands Operations

CNOOC International's Long Lake facility, located in northern Alberta just south of Fort McMurray, began producing in 2008 and is a SAGD (steam-assisted gravity drainage) operation, with production capacity of 72,000 barrels of bitumen a day.

KEY MILESTONES IN 2021

- Achieved first oil on three redrilled wells at Long Lake, adding 1,500 barrels of oil per day to production capacity.
- Advanced our Kinosis 1A (K1A) pipeline towards restart in 2022.
- Managed the COVID-19 pandemic with no significant outbreaks. Our Long Lake turnaround was completed without any confirmed COVID-19 cases and zero injuries.
- Exceeded our daily production target.
- Advanced our Partial Upgrader project towards restart in 2022.

- Completed the year with no major incidents or spills.
- Recognized by the Alberta Energy Regulator as the most improved asset, in terms of emission intensity reduction over the last 10 years (approximately).

OTHER OIL SANDS INTERESTS

- 25% non-operating interest in Hangingstone, a SAGD joint-venture project operated by Greenfire Resources Operating Corporation.
- 7.23% non-operating interest in Syncrude's oil sands mining and upgrading facility.
- Equity investment in MEG Energy.



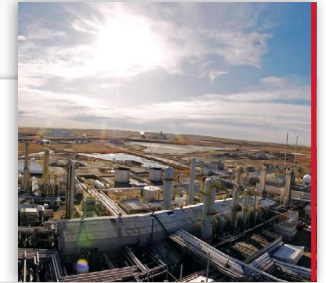


Balzac Power Station (BPS)

CNOOC International is a 50% partner and operator of a 120 megawatt, natural gas-fired, combined cycle power station that is a 50/50 joint venture between CNOOC International and ENMAX Energy, that CNOOC operates and maintains.

KEY MILESTONES IN 2021

- Achieved 3,750 days without a recordable injury and maintained outstanding record of zero Lost Time Injuries (LTI) since the facility's commissioning in 2001.
- Generated over 307,000 megawatt hours for the Alberta electricity grid in 2021, which is equivalent to powering about 44,000 homes for one year!



Soderglen Wind Farm

CNOOC International is a 50% partner in the 70.5-megawatt Soderglen Wind Farm operated by TransAlta in Southern Alberta.

KEY MILESTONES IN 2021

- 47-turbine farm produced a total of 113,000 megawatts in 2021, which is equivalent to powering about 16,142 homes for one year.



Atlantic Canada

100% working interest of Exploration Licenses 1144 and 1150 in the Flemish Pass Basin offshore Newfoundland and Labrador.

KEY MILESTONES IN 2021

- Implemented complex and robust COVID-19 protocols and procedures to allow our workforce to return to the office.
- Safely executed the offshore drilling program.
- Achieved best-in-class Health Safety & Environment (HSE) performance with no COVID-19 cases, safety or environmental incidents.
- Executed all offshore activities within full regulatory compliance.
- Completed drilling operations on the Pelles exploration well, located approximately 450 kilometres offshore Newfoundland.





Letter from the CEO

Last year called on each of our team members to find new ways of working together to deliver safe, profitable barrels, and I believe we rose to the challenge. From participating in our monthly safety awareness campaigns and evoking our Stop Work Authority, to initiating safety committees and finding ways to support the health and wellbeing of our colleagues, each day I saw evidence of teams stepping up to take personal accountability for strengthening our safety-first culture.

There are some key efforts I want to highlight from 2021:

- Our Coronavirus Prevention and Control Leadership Team monitored COVID-19 data and government mandated health measures to guide how we work, helping to ensure the safety and wellbeing of our teams.
- Through an exceptional level of safety and operational performance, the Pelles exploration well, located approximately 450 kilometers offshore Newfoundland, was completed safely, under budget and ahead of schedule.
- We continued to focus our efforts on helping those in the communities we operate in, which included our annual scholarship program and food bank donations.

In 2021, CNOOC International recognized the importance and increased momentum towards achieving net-zero emissions by 2050. We have built an energy transition roadmap and engaged a multidisciplinary team to examine policy impacts, opportunities, and value potential for our business. In this report, we have included an interview with Nick Wallat, Senior Manager of Development Planning and Innovation, highlighting some of the exciting work we are doing in this area.

Each year provides a new opportunity to build on our commitment to safety, teamwork and optimizing our operations. If the last few years have taught us anything, it is that we cannot become complacent – just as new opportunities await, so do the challenges. We must continue to adapt to meet those challenges and deliver strong results, safely, in the years ahead.

We look forward to continuing to listen and engage with you.



Liu Yongjie

Chairman of CNOOC International & CEO, CNOOC Petroleum North America



Delivering Results, Safely

Nothing is so important that it cannot be done safely. This is what is behind every job completed across all areas of our business, and 2021 was no exception. Whether it was in our operations at site, our response to the ongoing COVID-19 pandemic or our safe drilling of the Pelles well offshore Newfoundland, in 2021 our teams continued to demonstrate their commitment to the safety and wellbeing of themselves and others.

OUR PROGRESS IN 2021



In 2021, we saw our highest work hours in the last several years, **2,974,193** to be exact! Despite the increase in work due to a number of large-scale projects – K1A Recovery, Long Lake Southwest and the Upgrader Partial Restart – as well as a significant amount of drilling and completions work, our safety performance remained strong and we had no significant COVID-19 outbreaks.



While we saw one Lost Time Injury (LTI) and four recordable injuries in 2021, our safety performance continues to move in the right direction. Our LTI and Recordable Injuries, and our Significant Events have continued to trend downward since 2013, with the exception of our 2020 performance which saw 0 LTIs and recordable injuries.

OUR PROGRESS IN 2021 (CONT'D)

Canada-wide Safety Performance (COMBINED EMPLOYEE AND CONTRACTOR)

Year	Lost-Time Injury Frequency (LTIF) ¹	Total Recordable Injury Frequency (TRIF) ²
2017	0.4	0.62
2018	0	0.35
2019	0.09	0.61
2020	0	0
2021	0.07	0.27

¹ LTIF is a measure of safety performance calculated as the number of lost time injuries and fatalities recorded for every 200,000 hours worked.

² TRIF represents the total number of modified work cases, medical treatment cases, lost time injuries and fatalities for every 200,000 hours worked.

In addition to occupational safety, we are focused and committed to process safety and have continued to exercise diligence in managing process safety events. Process safety events are events where a hazardous material/substance is released from primary containment, resulting in personal injury and/or environmental impact. These events have a greater potential for impacting more than one person and have additional impacts of property damage, loss of production and environmental harm. In 2021, we closed the year with one Tier 1 and one Tier 2 Process Safety Event.

SAFETY REFOCUS CAMPAIGN

In October, following a rise in safety-related incidents, North American Operations and Major Projects organized a Safety Refocus Campaign to share incident learnings and hold open discussions on how to improve HSE performance as a united, integrated team. Topics included risks of multitasking, COVID-19 and impact on mental health, vehicle safety, and reducing slips, trips and falls. The Safety Refocus Campaign aligned with elements of the CNOOC International 100 Days of Safety Enhancement Campaign, which was launched to further promote and consolidate the three-year work safety action plan.



“We cannot become complacent when it comes to safety. This campaign highlights where we need to focus our attention and provides tools and resources to our staff to help them put safety first, every day.”

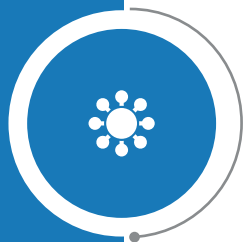
GEORGE MITSOPOULOS GM – HSE, NORTH AMERICA



Process Safety Events

Year	Tier 1	Tier 2
2017	0	2
2018	1	0
2019	0	3
2020	0	1
2021	1	1





Community Matters

In 2021, we continued to support the communities where we live and work through initiatives that prioritize care to individuals and families who need it most. We provided funding to approximately 30 community organizations in Fort McMurray, Anzac and surrounding Indigenous communities and an additional 10 in St. John's and Calgary.

HIGHLIGHTS FROM 2021

With our priority to support thriving and safe communities, we focused on food security, youth empowerment, and health and wellness in 2021.

- **Food security** — We supported the Wood Buffalo, Calgary and St. John's Food Banks through company and matched employee donations. This made possible:
 - 150 emergency food hampers for the Calgary Food Bank
 - 30 days of food for the Wood Buffalo Food Bank and continued core funding for the Mobile Pantry Program assisting those who live in rural communities
 - The purchase of critical items for the St. John's Salvation Army division
- **Youth empowerment** — Our commitment to supporting youth was demonstrated through scholarships we provided to Keyano College students, and a donation to the Sekewha Youth Program, Chipewyan Prairie First Nation's Youth Centre in Janvier, Alberta, helping it achieve its vision for a healthy, safe and sustainable community. We also gave to Girls Inc. in 2021, an organization providing programs to empower women by providing a girl's exclusive safe learning environment.



From left to right: Laura Cote, Store Manager of Anzac Grocery, George Mitsopoulos (GM – HSE, North America), Dan Edwards (Executive Director, Wood Buffalo Food Bank), Candace Sturgess (Owner of Anzac Grocery).

HIGHLIGHTS FROM 2021 (CONT'D)

- **Health and wellness** — We donated to **Wellspring Calgary**, an organization that provides free, supportive care programming to help those from Calgary and surrounding areas living with cancer and the people who support them. **Distress Centre Calgary** also received our support, which assisted them in providing services remotely during the pandemic. In 2021, we also continued our long standing support to **Northern Lights Health Foundation** which helps put essential equipment in the hands of health care workers and **APPLE Schools**, a project promoting healthy living for 87 schools across British Columbia, northern Alberta, Northwest Territories, and Manitoba.
- Other organizations who benefited from our giving in 2021 included the local **Helicopter Emergency Response Operations (HERO) Foundation**, which has provided 24/7 dedicated medevac helicopter coverage for the Wood Buffalo region since 2016 as well as **United Way Wood Buffalo**.

ECONOMIC CONTRIBUTION

CNOOC International's Canadian-based economic contributions are as follows:

Year	Capital Expenditure (CAD \$MILLIONS)	Total Royalties and Income Taxes for Canadian Operations (CAD \$MILLIONS)
2017	255	9
2018	296	54
2019	512	92
2020	215	13
2021	335	130

Increased Capital Expenditure related to the progression of major projects at operated Long Lake (e.g.: Brownfield, K1A Recovery, Upgrader Start-Up), execution of the Pelles Exploration well, and deferral of Syncrude capital from 2020 into 2021.

Increased royalties as a result of higher production and realized pricing in 2021.



Baoshan Lu, GM, Operations, CNOOC International, presenting Todd Pynoo, Pilot, Andrea Montgomery Spring, Executive Director and John Valiant, Pilot, with a donation for the Helicopter Emergency Response Operations (HERO) Foundation.



"In 2021, as COVID-19 pandemic restrictions eased, we have been able to spend more time in our neighbouring communities, regularly meeting with leadership and community members. This paved the way for meaningful events, including a visit to the Sekewha Youth Centre at Chipewyan Prairie First Nation, and our participation in the Heart Lake First Nation Golf Tournament. Cheryl Alexander, a member of the Mikisew Cree First Nation also led a powerful Lunch and Learn for CNOOC Petroleum North America staff to mark Canada's first National Day for Truth and Reconciliation."

CORY KLAPPER ANALYST, COMMUNITY RELATIONS & CONSULTATION



COMMITTED TO SUPPORTING INDIGENOUS INCLUSION IN OUR WORKFORCE

In June 2015, the Truth and Reconciliation Commission (TRC) of Canada presented 94 “Calls to Action” (or recommendations) to further reconciliation between Canadians and Indigenous peoples.

Per the TRC Calls to Action #92, Business and Reconciliation, CNOOC International is committed to engaging in meaningful consultation and building respectful relationships. We continue to ensure our Indigenous neighbours have the opportunity to gain long-term sustainable benefits from our projects by creating meaningful prospects for local residents to participate in our operations. This is an essential component of our social license to operate.

The Long Lake oil sands operation is situated within Treaty 8 territory, overlapping the traditional lands of three First Nations. Long Lake is also near several Métis communities. We engage these First Nation and Métis communities to build mutually beneficial relationships and to ensure long-term inclusion of community members and Indigenous businesses in our operations. This includes ongoing dialogue to understand impacts to the land and the capacity that exists within the Indigenous businesses. We support Indigenous inclusion in the Request For Proposals process and continue to prioritize local and Indigenous ownership when evaluating contractors.

“

“CNOOC International has gone above and beyond the standard of consultation provided by other Oil Sands producers located on our traditional lands. Kudos to them for taking the lead on this!”

HARRY CHEECHAM LAND USE CONSULTATION SPECIALIST, INDUSTRY & GOVERNMENT RELATIONS CORP,
FORT MCMURRAY 468 FIRST NATION



Bryanne Gardner, Business Development Lead, Community Relations, on a site visit with members of the Fort McMurray 468 First Nation. On the left, FM468FN Elder, James Woodward, and in the middle, Harry Cheecham, Consultation and Land.

ADVANCING EDUCATION

Since 2012, CNOOC International has awarded high school students from Anzac, Alberta, the Bill Woodward Scholarship, which provides \$2,500 per year up to four years for students entering or currently enrolled in post-secondary schools.

Over the past ten years, we have contributed more than \$100,000 to this scholarship program, helping to fund the education of 43 Anzac students.



In 2021, we contributed \$10,000 to the Bill Woodward School's Truth and Reconciliation library. We also provided Google Chromebooks and backpacks for the year-end student awards, which took place at the Anzac Community School and Bill Woodward School.



MITCHEL JANVIER
2016 SCHOLARSHIP
RECIPIENT

“The CNOOC International Scholarship – Bill Woodward School enabled me to graduate from the University of Calgary with a Bachelor of Science majoring in Natural Sciences. In 2021, I started working for the Willow Lake Métis Nation, while at the same time began work towards my Masters of Sustainability at the University of Saskatchewan. I am taking this course online and am living in Anzac. Once I complete my course, I plan to apply what I've learned back into the community.”



BRITTANY MCLEAN
2010 SCHOLARSHIP
RECIPIENT

“The CNOOC International Scholarship – Bill Woodward School helped me fulfill my dream career of becoming a teacher. I graduated from the University of Alberta with a Bachelor of Education. I'm currently teaching at Good Shepherd School in Fort McMurray, which is actually the school I attended when I was growing up.”



Minimizing Impacts to the Environment

As a responsible energy developer, we aim to minimize our environmental impact and help keep communities safe. This includes acting on climate change and reducing our carbon emissions. We do this by supporting a range of actions from using energy efficient technologies in the construction of our facilities, including pursuing energy conservation measures across existing operations, and making investments in new technologies and innovation to improve emissions performance longer term.

OUR PROGRESS IN 2021

Since 2010, we have reduced overall emissions at Long Lake by **46%** while growing production. In addition, we have lowered our greenhouse gas intensity by **64%** over the same period.

Long Lake Emissions

Year	Carbon Dioxide (CO ₂) Equivalent Emissions ¹ (million tonnes)	Overall Production Intensity (t CO ₂ e/m ³)
2017	1.88	0.79
2018	1.86	0.72
2019	1.68	0.63
2020	1.33	0.72 ²
2021	1.76	0.74

Balzac Power Station Emissions

Year	Carbon Dioxide (CO ₂) Equivalent Emissions ¹ (million tonnes)	Overall Production Intensity (t CO ₂ e/m ³)
2017	0.08	0.42
2018	0.21	0.44
2019	0.21	0.45
2020	0.25	0.44
2021	0.27	0.44

¹ Emissions include direct emissions from operations plus indirect emissions from electric power consumption.

² Emissions per cubic metre higher than previous years due to constrained production in 2020.





NICK WALLAT
Senior Manager,
Development, Planning
and Innovation

The Water Technology Development Centre is jointly owned by Suncor (operator), Canadian Natural Resources Limited, Cenovus and CNOOC International. It completed construction in 2019 and has an ambitious five-year test plan to pilot multiple different technologies per year. This project is a great example of industry collaboration to jointly improve Oil Sands performance and limit its environmental impact.

Q & A WITH NICK WALLAT

Q: In 2021, CNOOC International announced energy transition as a key priority. Who is involved and what is being considered as you move ahead?

A: While we are already underway with numerous projects that contribute to energy efficiency, this is still new territory and we're taking a one team approach to ensure planning is comprehensive. With a multidisciplinary team of technical, economic, planning, marketing, HSE and external relations personnel, together we are working to analyze and understand policy impacts, opportunities and value potential for our business. Our one team approach is not limited to our internal business – we continue to ensure external engagement on industry-wide and provincial solutions.

Q: Long-term solutions are often the focus when it comes to energy transition. What are near-term initiatives that can meaningfully reduce Long Lake emissions?

A: There are two projects that can have a considerable impact on our emissions at Long Lake. One is using non-condensable gas injection in the Long Lake reservoir to reduce steam oil ratio (SOR) to improve energy intensity. This involves injecting methane with steam into our mature wells to produce an insulating blanket effect for our steam chambers, reducing heat

loss outside of the reservoir. In addition, we have optimized our development plan to include more infill and sidetrack wells to improve our development efficiency, reduce SOR and improve Long Lake's overall energy intensity. We continuously focus on making energy efficiency improvements to our facility and have already seen great outcomes on our efforts.

Q: As we look ahead to 2022 and beyond, what energy transition opportunity are you most excited about?

A: I believe that moving towards carbon neutrality is a real opportunity in a five-year time frame. The Long Lake SAGD plant is at roughly the industry average carbon emissions intensity

“ Our work on energy transition is exciting and meaningful, and I believe will play a significant role in redefining what is possible in our industry.”



Q: Can you share more about how infill and sidetrack wells reduce steam oil ratio and improve energy intensity?

A: Infill and sidetrack wells improve the overall thermal efficiency of the Long Lake reservoir. Over the past 15 years we have injected a significant amount of steam into the Long Lake reservoir to heat, mobilize and produce bitumen. Not all of this mobilized bitumen always flows to the producer wells. By drilling additional producers (infills) or changing the location of the original producer wells (re-drill sidetracks) we can produce this incremental bitumen with very little additional steam.

for Oil Sands, and at the higher end of energy intensity globally for upstream oil and gas production. There are multiple ways that Long Lake (and the oil sands industry) can meaningfully reduce energy emissions and become a global leader. This ambitious target includes evaluation of solvent-based recovery methods to reduce steam usage by greater than 20% as well as evaluation of both hydrogen production and carbon capture and storage (CCUS) for both the Long Lake project and future in-situ oil sands projects. The CCUS work scopes also tie to broader industry initiatives, such as constructing pipelines to transport CO₂ for sequestration. We will also be focused on screening new technologies that support carbon neutral energy development.

Working Towards Zero Spills: Events

Year	Canadian Operations Total	Shale Gas & Oil	Oil Sands
2017	5	0	5
2018	10	0	10
2019	12	0	12
2020	6	1	5
2021	2	0	2

Working Towards Zero Spills: Volume Released (m³)

Year	Canadian Operations Total	Shale Gas & Oil	Oil Sands
2017	38	0	38
2018	380	0	380
2019	834	0	834
2020	12	0	12
2021	19	0	19

Volumes include liquid and solid reportable releases.

Regulatory Non-compliances

Year	Canadian Operations Total	Shale Gas & Oil	Oil Sands
2017	69	5	64
2018	53	1	52
2019	13	1	12
2020	19	9	10
2021	12	2	10

Improved compliance performance trend: 83% decrease in regulatory non-compliances over the past five years.

Contributing factors to performance are improved regulatory tools, processes, reporting, awareness, and communication with regulators.

In 2021, **87%** of inspections performed by a regulatory agency were ranked Satisfactory (i.e., no regulatory non-compliances identified) and we surpassed the industry average for inspection performance with the primary Alberta and British Columbia energy regulators.

DID YOU KNOW?



In 2021, 58% of our non-compliances were identified internally and self-reported to the respective regulators. These practices demonstrate thoroughness and diligence in our internal and external reporting and recording practices. Regulators encourage self-reporting as evidence of functioning systems and programs, which are integral to positive HSE results.

PARTNERING TO PROTECT THE ENVIRONMENT – KEY PROJECTS

- **Industrial Footprint Reductions Options Group (iFROG):** CNOOC International is an active participant in iFROG, which is focused on improving oil sands construction and reclamation practices in wetland areas. This collaborative program, initiated in 2003, focuses on the development, funding, and implementation of projects to meet wetland research conditions in our approvals.
- **NAIT Boreal Research Institute and ConocoPhillips Partnership:** CNOOC International has partnered with the NAIT Boreal Research Institute and ConocoPhillips to conduct a cluster planting trial aimed at developing a reclamation approach that facilitates accelerated localized canopy closure and increases structural plant diversity. A cluster planting trial site has been established on a CNOOC International disposition near the Kinosis facility.
 - Also, as part of this partnership, we have conducted a soil depth replacement study aimed at investigating both the effect of limited soil capping depths on forest establishment as well as alternative approaches to mitigate for potential limitations associated with shallow topsoil capping on industrial disturbances in the boreal region.
- **Regional Industry Caribou Collaboration (RICC):** CNOOC International is a member of the Regional Industry Caribou Collaboration (RICC). RICC is a group of energy and forestry companies working collaboratively to deliver range-level efforts to recover boreal caribou and their habitat through research and restoration projects.



Woodland caribou on a seismic line taken as part of the Regional Industry Caribou Collaboration monitoring program.

ABANDONMENT & RECLAMATION PROJECTS

As we continue to progress abandonment and reclamation activities, our top priority remains ensuring the safety of our workforce and regulatory compliance, while minimizing impacts on local communities and the environment.

- **Progressing Shale Gas Abandonment and Reclamation:** In 2021, we continued our work to abandon a number of our shale gas assets in Northeast British Columbia. In addition, we are preparing future plans to meet all BC Oil and Gas Commission regulations with respect to dormant sites.
- **Progressing Balzac Abandonment & Remediation/Reclamation:** The former Balzac Gas Plant has been demolished and the associated wells have been abandoned. Currently, the plant and field are in the process of being remediated and reclaimed in compliance with all applicable regulations. As of the end of 2021, over 90% of the field sites have been remediated and 57% of the sites have been reclaimed with a targeted completion date of 2023.

SUSTAINABILITY REPORTING: LEARN MORE

This publication highlights some of the sustainability initiatives underway at CNOOC International's Canadian operations. More information is available at www.cnoocinternational.com/sustainability.

OPPORTUNITIES AT CNOOC INTERNATIONAL

A career at CNOOC International is an opportunity to contribute to a team that values diversity and integrity and strives to be the best. It's also about working toward a common goal: creating value through safe and environmentally responsible energy development. This creates value for all stakeholders, including our owners, Canadian governments, local communities and all Canadians. To learn more, visit CNOOC International Careers at www.cnoocinternational.com/careers.

FORWARD LOOKING STATEMENTS

This report may contain “forward-looking statements” including statements regarding expected future events, business prospectus or financial results. These statements are based on assumptions and analyses made by CNOOC International in light of its experience and its perception of historical trends, current conditions and expected future developments, as well as other factors that CNOOC International believes are appropriate under the circumstances. However, whether actual results and developments will meet the expectations and predictions of CNOOC International depends on a number of risks and uncertainties which could cause the actual results, performance and financial condition to differ materially from CNOOC International's expectations, including but not limited to those associated with fluctuations in crude oil and natural gas prices, the exploration or development activities, the capital expenditure requirements, the business strategy, whether the transactions entered into by the Company can complete on schedule pursuant to their terms and timetable or at all, the highly competitive nature of the oil and natural gas industries, the foreign operations, environmental liabilities and compliance. All financial information is in Canadian dollars.

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