Canadian Natural

2020

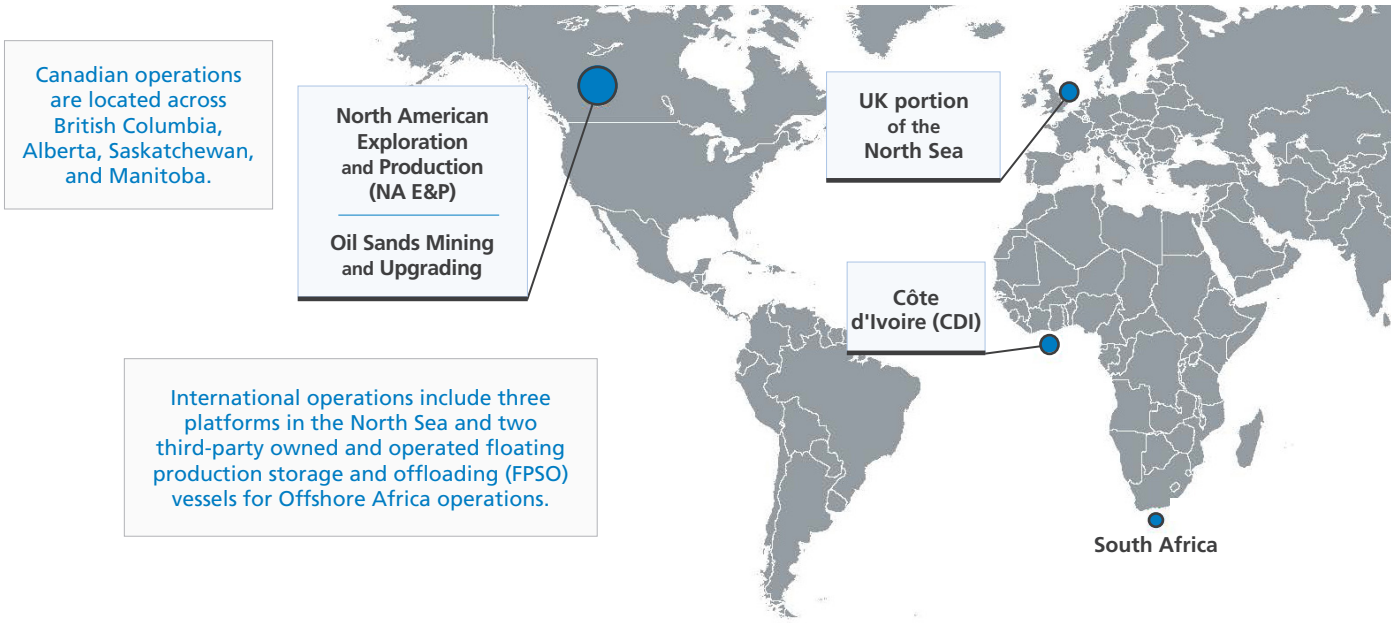
STEWARDSHIP REPORT TO STAKEHOLDERS

SUSTAINABLE OPERATIONS THROUGH INNOVATION AND CONTINUOUS IMPROVEMENT

Who We Are

Canadian Natural Resources Limited (Canadian Natural) is a senior independent crude oil and natural gas exploration, development and production company based in Calgary, Alberta, Canada. Our strong, diversified asset base is comprised of a balanced portfolio of light, synthetic, and heavy crude oil and natural gas.

Canadian Natural operates in Canada, the United Kingdom and Offshore Africa. We are committed to a long-term presence in the communities where we operate. Our activities create value by providing employment, business development opportunities, revenues to governments that contribute to spending on goods and services, and essential resources for public services, including health, safety, education and training.



WE LIVE OUR MISSION STATEMENT

"To develop people to work together to create value for the Company's shareholders by doing it right with fun and integrity."

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Cover Photo

Progressive reclamation at Horizon oil sands mining operations.

Many of the photographs in this report were provided by Canadian Natural staff. We would like to thank Kenneth Cheung, Kira Gerow, Annie Greenfield, Kate Ivanova, Wendel Nordin and Graeme Zeiler for contributing pictures to this edition of the Stewardship Report to Stakeholders.

Message to Stakeholders

The past year has presented challenges on many fronts for the global community. We are proud of our teams for working together, learning from these challenges and for continuing to provide responsibly produced energy the world needs. Whether it is developing new technologies that will enhance environmental performance or working with stakeholders on shared interests, Canadian Natural and our industry have always risen to the challenge and that resiliency is one of our strengths.

At Canadian Natural, we incorporate Environmental, Social and Governance (ESG) practices that strengthen our long-term sustainability across all aspects of the business. Since 2009, Canadian Natural has invested $3.9 billion in research and development, driving the necessary improvements that will successfully reduce our environmental footprint and set us apart as an ESG leader.

By driving the development and implementation of innovative technologies, our teams are making progress and creating value in many ways as outlined in this report. The content in our 2020 Stewardship Report to Stakeholders is aligned with the Global Reporting Initiative (GRI), the Task Force on Climate-related Financial Disclosures (TCFD), the Sustainability Accounting Standards Board (SASB) and the UN Sustainable Development Goals (SDGs).

The following are highlights of what our teams were able to accomplish by working together in 2020:

- Lowest corporate Total Recordable Injury Frequency (TRIF) to date; 58% decrease since 2016
- 29% decrease from 2018 in leak frequency of high-risk pipelines — lowest level to date
- 1,065 inactive wells abandoned and 1,050 reclamation certificates submitted — industry leading performance
- $490 million in contracts with 159 Indigenous businesses
- $25 million total community investment in 2020, including $1.4 million in COVID-19 related support to local communities in need
- Approximately 82,000 full-time equivalent jobs supported by operational and capital spending in our Canadian operations

It took Canadian ingenuity to develop the oil sands and by continuing to innovate, Canada is in a strong position to be the ESG-leading barrel. Canada's long life, no decline oil sands mining assets with manufacturing-like operations represent one of the clearest paths to net zero emissions of any global crude oil asset, and this is where Canada's oil sands industry has an opportunity to lead.

Canadian Natural, along with Canada's other largest oil sands producers, have established an unprecedented alliance to help Canada achieve net zero GHG emissions called the Oil Sands Pathways to Net Zero initiative. As proud Canadian companies, we share the aspiration of Canadians to find realistic and workable solutions to help address the challenge of climate change. Working together with our peers and government will make this goal achievable and more cost effective.

Working Together

The COVID-19 pandemic affected employees in different ways but it taught all of us the importance of supporting each other to ensure we continued to deliver safe, reliable, effective and efficient operations, across all areas of the business.

COVID-19 also elevated the need for additional workplace resources in support of mental health. Safety is a core value at our Company, and recognizing mental health fatigue is critical for maintaining a safe work environment.

In the context of collaboration and resiliency, we would like to thank our employees, contractors and stakeholders for your commitment to operational excellence, adhering to our protocols and supporting each other by working together. The advancements we have made as a Company and as an industry over the past year would not be possible without you. We would also like to extend our gratitude to health care workers, medical professional and health advisors within and beyond our company, for their crucial role and dedication in keeping all of us safe.

Our strong teams, long life, low decline assets and significant investment in leading-edge technologies puts us on a path to be a preferred supplier of responsibly produced energy the world will need in a lower carbon emissions future.

N. MURRAY EDWARDS
Executive Chairman

TIM S. MCKAY
President

PAMELA A. MCINTYRE
Senior Vice-President, Safety, Risk Management & Innovation

Feature: Leadership in ESG and sustainable energy

Canada is well positioned to deliver the energy the world needs

Canada's crude oil and natural gas industry continues to deliver leading Environmental, Social and Governance (ESG) performance amongst the top crude oil exporting countries, including transparency in its operations, compliance with the most stringent regulatory and reporting requirements in the world, and leading innovation and cleantech investment.

With a well-established track record of safe and responsible development, industry is showing resilience and continually adapting to challenges through entrepreneurship and ingenuity to deliver impressive results, supported by technology pathways to net zero.

15%

of Canadian oil sands producers' executive incentive pay was linked to ESG metrics in 2020 (vs. 11% for US exploration and production executives)

Source: BMO Capital Markets, Oil and Gas Report, June 2021

7.4%

of industry's workforce was made up by Indigenous businesses in 2019 (up from 4.8% in 2018), with a record annual spending of $2.6 billion

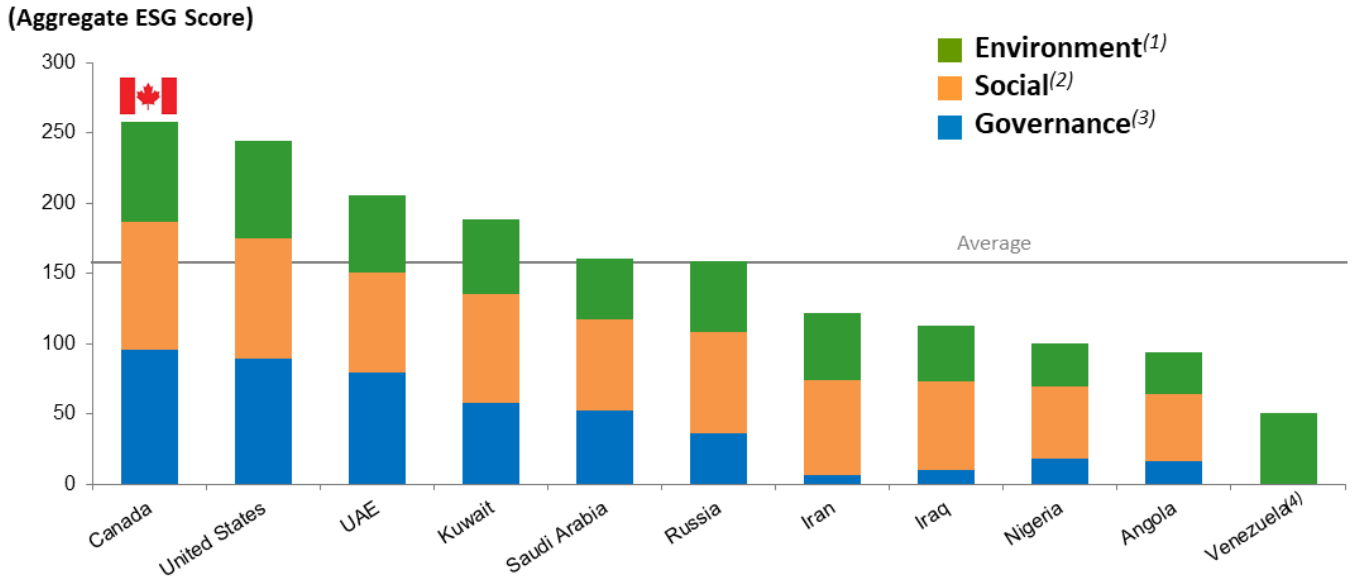
Source: Canadian Association of Petroleum Producers (CAPP) survey, 2020

27%

greenhouse gas (GHG) intensity reduction among oil sands producers since 2013 (vs. 13% for global majors)

Source: BMO Capital Markets, Oil and Gas Report, June 2021

ESG Ratings Among Top Oil Exporting Nations



(1) 2020 Yale Environment Protection Index (EPI).
(2) 2020 Social Progress Index (SPI) prepared by Social Progress Imperative.
(3) 2019 World Governance Indicators (WGI), Regulatory Quality Score percentile rank.
(4) Venezuela Social score not shown due to insufficient data and Governance score is negligible.

While demand for renewable sources of power continues to increase, the expectation is that crude oil and natural gas remains an important part of the global energy mix for the foreseeable future. As the world emerges from the impacts of COVID-19, all forms of energy will be needed for a strong and sustained recovery.

Feature: Leadership in ESG and sustainable energy

Canadian Natural's leading ESG approach

Canadian Natural has an integrated ESG approach that reflects a long-term commitment to sustainable development and creating value for stakeholders.

Highlights:

Environmental

- Canadian Natural has a defined pathway that is driving **long-term GHG emissions reductions** with an integrated management strategy that includes **investment in research and technology**, on our journey to net zero oil sands emissions.
- We **invest in water management** to increase our produced water recycle rate.
- We are **industry leaders for abandonment, decommissioning and reclamation projects** in Canada and International offshore operations.

Social

- We work with communities near our operations, including Indigenous communities, to **share in the benefits of industry activity through local business development, employment and training**.
- When we focus on knowledge, experience, skills and background, diversity is the outcome. Our business depends on a diverse and talented workforce of **approximately 10,000 full-time employees** who take pride in 'working together' and 'doing it right'.

Governance

- Robust systems in place to **mitigate risks and pursue opportunities** with Board oversight.
- We operate with the **highest levels of integrity and ethical standards.**
- **ConfidenceLine**, our third-party managed integrity hotline, is one of the ways employees, contractors and service providers are able to **share concerns or questions regarding integrity or unsafe work practices in a confidential and anonymous way.**
- **Executive compensation is linked to corporate performance, including safety, asset integrity and environmental.**

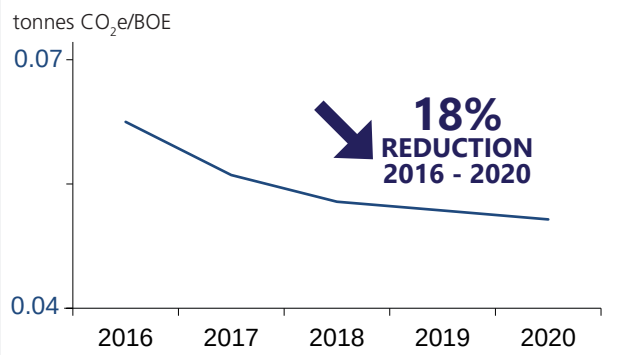
2020 ESG Highlights

Canadian Natural has an integrated ESG approach that reflects a long-term commitment to sustainable development and creating value for stakeholders.

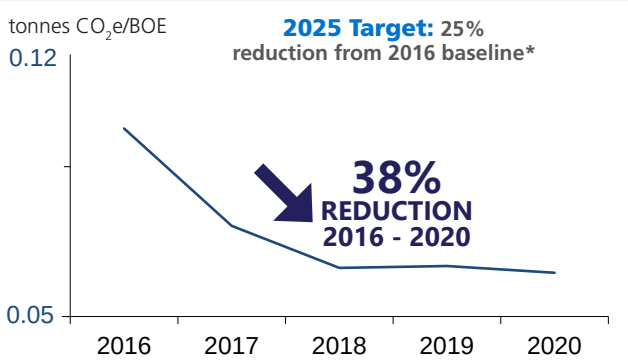
ENVIRONMENT

GHG emissions

Corporate Scope 1 (Direct) GHG Emissions Intensity

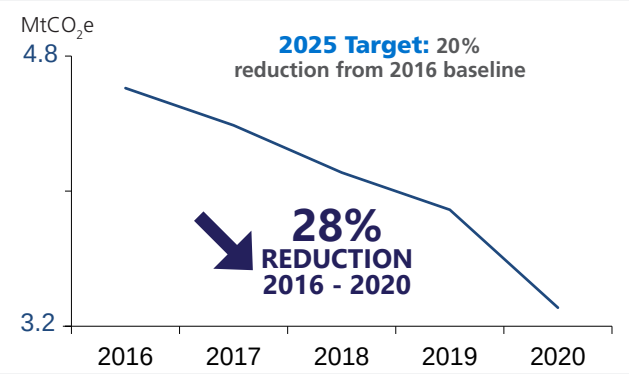


Oil Sands Mining and Thermal GHG Emissions Intensity



**Includes Scope 1 and 2 emissions.*

North America E&P Methane Emissions



New environmental targets

- **NA E&P methane target**
  50% reduction by 2030 from 2016 baseline
- **In situ fresh water use intensity target**
  40% reduction by 2026 from 2017 baseline
- **Oil sands mining fresh river water use intensity target**
  40% reduction by 2026 from 2017 baseline

Innovation and technology

$3.9 billion
invested since 2009
in Research and Development

$48 million
invested in 2020
in GHG research, technologies and reduction projects

Largest owner of carbon capture capacity
in the Canadian crude oil and natural gas sector; 6th largest globally

Journey to net zero

Our defined pathway is driving long-term GHG emissions reductions through an integrated emissions management strategy and investment in research and technology, on our journey to net zero oil sands emissions.

Near-Term Actions

- In-Pit Extraction Process (IPEP) pilot
- Molten carbonate fuel cells pilot
- Solvent Enhanced Oil Recovery (EOR) pilots
- NRG Canada's Oil Sands Innovation Alliance (COSIA) Carbon XPRIZE
- Enhanced detection and measurement technologies for fugitive emissions reduction
- Pneumatic retrofits
- Advanced data analytics/ digital operationalization
- Carbon capture, utilization and storage (CCUS)
  - Horizon's CO_2 utilization
  - Quest carbon capture and storage (CCS) project
  - North West Refinery (CO_2 utilization)/Alberta Carbon Trunk Line

Medium-Term Actions

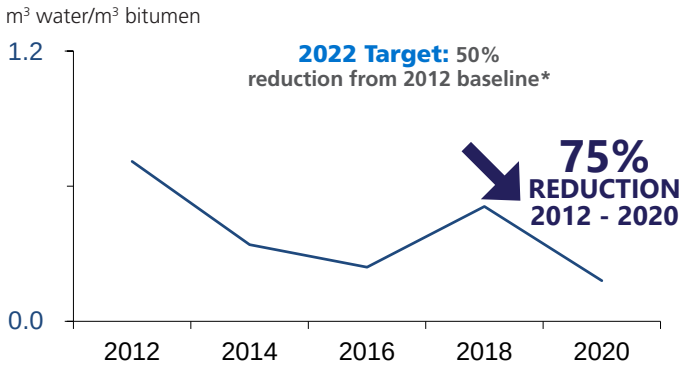
- IPEP commercialization
- Molten carbonate fuel cells commercialization
- Solvent EOR commercialization
- Technology separating minerals from tailings stream
- Leverage CCUS expertise to optimize projects
- Advanced data analytics/ digital operationalization

Long-Term Actions

- Expand/develop future CCUS projects
- Carbon capture and conversion (carbon fibers, asphalts, plastics)
- Advanced data analytics/digital operationalization

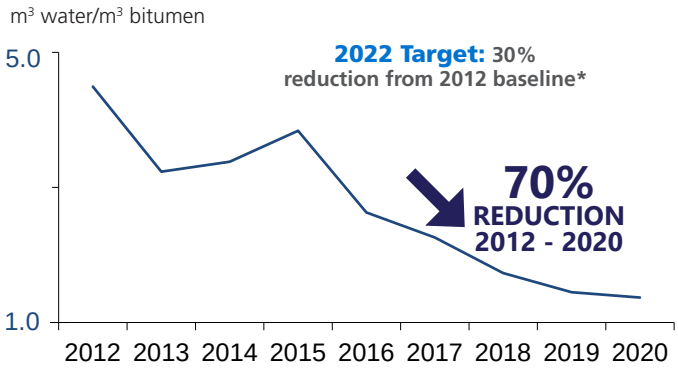
Water use

In Situ Fresh Water Use Intensity



*Includes Alberta thermal in situ facilities.

Oil Sands Mining Fresh River Water Use Intensity



*Includes river water and tributaries.

Reclamation

Abandoned
1,065 inactive wells

Reclamation certificates
1,050 submitted
854 received
in 2020; the most of any operator in Western Canada

Trees planted
5.9 million to date

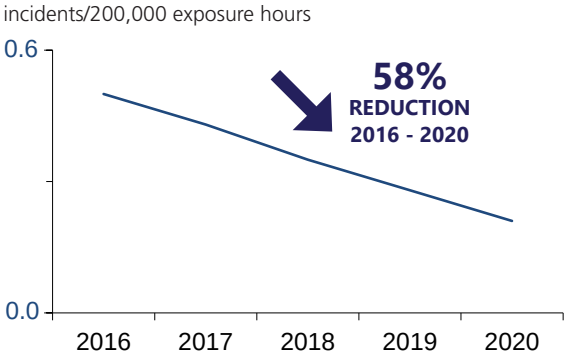
Hectares reclaimed
9,200 in North America E&P since 2016; equivalent to ~11,300 Canadian football fields

1,981 in oil sands mining to date

SOCIAL

Health and Safety

Corporate TRIF vs Man-hours Worked



Economic contributions in 2020

$1.15 billion in Canada

- Royalties **$598 million**
- Property taxes **$352 million**
- Surface & mineral land leases **$204 million**

$6.83 billion
total supply chain spending with 12,000+ suppliers worldwide

82,060 Full time equivalent jobs
supported by operational and capital spending in Canada

Jobs breakdown

- Direct **15,950 jobs**
- Indirect (suppliers) **46,065 jobs**
- Induced (economy at large) **20,040 jobs**

Community

$25 million
total community investment

$490+ million
in contracts with 159 Indigenous businesses

$1.4 million
in COVID-19 related support to organizations and communities

8,300+ volunteer hours
from employees

GOVERNANCE

37.5%
female independent Directors of the Board, exceeding the Board gender diversity target of 30%

Robust governance and risk management of ESG issues
by Board of Directors and Management Committee

ESG performance
is linked to executive compensation

COVID-19 response — a true collaborative effort

Canadian Natural Facilities team preparing for a United Way fundraising run.

The COVID-19 pandemic has impacted our lives and every area of our business in some way. Through it all, the health and safety of our people remained a core value for our Company. Canadian Natural has pandemic response and business continuity plans in place to protect the health and safety of our staff while maintaining safe, reliable operations. The plans were activated in response to the pandemic with the implementation of robust protocols and measures to limit virus transmission in order to protect our workforce, our work sites and the communities where we operate.

Working together to keep employees safe

Safety is a core value at Canadian Natural. We have an essential workforce that is necessary to maintain safe, reliable operations. A cross-functional team leveraged expertise and resources from different areas to effectively oversee our pandemic response.

Our team worked closely with provincial public health officials and Occupational Health and Safety, and followed guidelines from federal and provincial governments to address worker safety and manage risks.

> "When the COVID-19 pandemic was declared in March 2020, we were prepared to respond with measures to protect everyone's health and safety. The cooperation and professionalism of employees and contractors to understand, embrace and follow protocols has contributed to a response we can be proud of."

Pamela McIntyre,
Senior Vice-President, Safety, Risk Management and Innovation

Protocols and measures to reduce the spread of COVID-19

Canadian Natural implemented comprehensive safety measures across all operating areas, including work camps and offshore locations — from health protocols (mandatory masking, physical distancing, testing, contact tracing and isolation) to revised safe work procedures (modified shifts, education on controls, enhanced hygiene and cleaning requirements, illness reporting and daily health screening).

Our Emergency Services, medical professionals and Occupational Health Advisors supported all operations in Canada, the UK and Africa so that staff would receive clear and timely answers to numerous questions. To ensure access to information and resources for all teams, including frontline workers, we also relied on regular communications, such as online meetings and Company-wide webcasts with senior management, safety information bulletins and a dedicated intranet page.

Creative ways to stay safe and connected

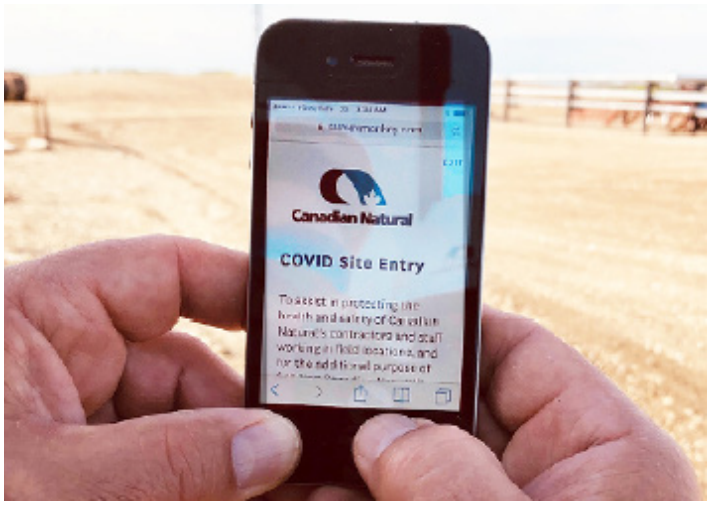
From town hall meetings to flexible work arrangements, our teams established effective and creative strategies to continue working together safely, including:

- "Working groups" to safely complete critical work required for safe operations while minimizing physical interactions, shared spaces and close contact. This critical work is highlighted throughout this report, and includes asset integrity and environmental programs.

COVID-19 response — a true collaborative effort

Our IS teams ensured our employees transitioned smoothly to virtual/online meetings.

- Safety programs were maintained and expanded to include COVID-19 response elements. For example, daily field hazard assessments with employees and contractors were used as coaching opportunities to reinforce safety procedures and compliance with health guidelines and protocols. Read more in our Health and Safety section on pages 32-36.
- Mental health support was provided through our wellness program and also as part of proactive discussions at all levels, including virtual presentations with leadership, safety and frontline staff. Read about wellness programs in the Health and Wellness section on page 35.



We developed a company specific online health screening app for use before site access every day.

Supporting local communities

Our staff adapted quickly and continued to connect with community representatives and groups over the phone, virtually and following stringent health protocols when meeting in-person was required. Our efforts focused on assisting organizations by helping with COVID-19 response and online events, as well as those with increased needs due to the pandemic, such as seniors and children.

More than 950 employees across our company came forward to stand by their communities and volunteer in support of local organizations. Read more about our employees' work in the communities on page 46.

Looking ahead

We appreciate the efforts from all our employees, contractors and service providers – from our field employees working to maintain safe, reliable operations while adhering to COVID-19 protection protocols and procedures, to those who adapted to working remotely. Many challenges still lie ahead, and our teams continue to work together and manage risks of COVID-19. Throughout 2021, we'll be focusing on increasing mental health support and resources, implementing rapid testing in our large thermal and oil sands mining operations with camp facilities, and evaluating the impact of vaccination programs.

> "I have been through SARS, H1N1, floods, fires and other major events that threatened public safety. What is different about this pandemic is the overall scale of the event, the duration, and the constant pressure to react and respond to changes, which we did effectively."

John Penzo,
Superintendent, Emergency Services, Oil Sands Mining and Upgrading

Climate and GHG Emissions Management

Canadian Natural delivers long-term value and sustainability through climate and GHG emissions management.

The world needs more Canadian energy

Canada's natural resources are safely and responsibly developed with world-leading standards, under comprehensive regulatory oversight and emissions regulations, and with significant technology investment.

It took Canadian ingenuity to develop the oil sands and by continuing to innovate – Canada is in a strong position to be the ESG-leading barrel of crude oil. Canada's significant long life, no decline oil sands mining resources with manufacturing-like operations represent one of the clearest routes to net zero emissions of any global crude oil asset. These assets provide the opportunity for investments in innovation to achieve net zero from oil sands operations, making them valuable for long-term energy security and global GHG reductions.

Canadian leadership on climate change

The Government of Canada's commitments to reducing GHG emissions, along with climate frameworks in several Canadian jurisdictions, place our country as among the most responsible crude oil and natural gas producing jurisdictions globally. Canadian Natural supports Canada's leadership in the Paris Agreement to limit global warming to below 2°C as a pathway to reduce emissions and drive innovation. We also support federal and provincial governments goals to reduce methane emissions by 45% by 2025. For instance, Canadian Natural has reduced our methane emissions by 28% in our NA E&P operations between 2016 and 2020.

Canadian Natural and the Canadian crude oil and natural gas sector are delivering game-changing environmental performance. We recognized the need to reduce GHG emissions across our operations, leveraging technology and Canadian ingenuity to deliver results, and will continue to do so.

Many of the technologies used to reduce or eliminate GHG emissions in oil and natural gas extraction can also be adopted by end users in other industries like cement production and agriculture, as well as in office buildings and homes, accelerating the reduction of GHG emissions in Canada and globally.

Canadian Natural and companies in our sector have a range of potential technology pathways to deliver GHG reductions as part of adapting to lower carbon emissions futures. Carbon capture, utilization and storage (CCUS) is an important technology solution that helps set Canada on a pathway to net zero emissions in the oil sands.

In 2021, the Government of Canada's budget included support for CCUS and low-carbon fuels (e.g. hydrogen) as important pathways to achieve climate objectives, recognizing the important role of CCUS for the oil sands sector, and supporting the long-term resilience of the sector as part of a diversified energy mix well into the future.

Significant collaboration across industry and with governments will be essential to accelerate the path to net zero. This is why Canadian Natural, along with Canada's largest oil sands producers, formed the **Oil Sands Pathways to Net Zero initiative** in 2021. The goal of this unique alliance, working collectively with the Federal and Alberta governments, is to achieve net zero GHG emissions from oil sands operations by 2050 to help Canada meet its climate goals, including its Paris Agreement commitments and 2050 net zero aspirations. Members of the Pathways alliance will focus on finding and implementing workable solutions to achieve GHG emissions reductions, while also ensuring the oil sands industry continues to provide sustainable long-term economic and social benefits for Canadians. To learn more about the Pathways alliance please visit oilsandspathways.ca.

Global energy needs

Access to affordable, reliable, and abundant crude oil and natural gas unlocks human potential and raises quality of life. The United Nations (UN) relates general social and health outcomes to increased access to affordable energy and improved energy efficiency. Canadian Natural's activities also contribute to the UN Sustainable Development Goals (SDGs). The SDG symbols that appear at the start of each section in this report represent the most relevant ones to our activities.

As the world population continues to grow (projected to exceed nine billion by 2040, along with expanding economies and the middle class), independent analyses from energy firms and agencies forecast that crude oil and natural gas will remain an important part of the global energy mix in the future. As the world emerges from the impacts of COVID-19, all forms of energy will be needed for a strong and sustained recovery.

> "Through technology and innovation, we continue delivering game-changing environmental performance while contributing to global GHG reductions."
>
> **Tim McKay,** *President*

UN Sustainable Development Goals (SDGs) in this section

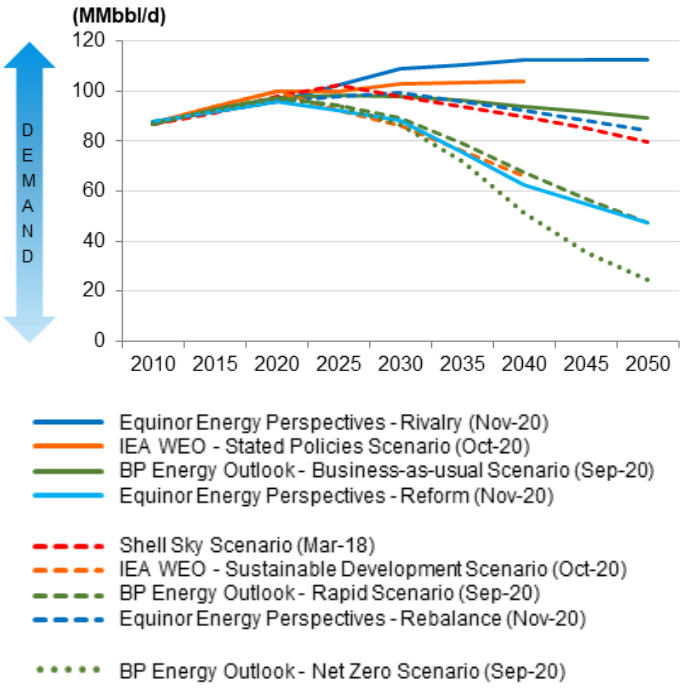
Resiliency of Canadian Natural's strategy

As part of evaluating climate change related risk and opportunities, Canadian Natural reviews independent external scenario analyses developed by energy firms and agencies representing a range of global oil and natural gas demand levels through to 2050.

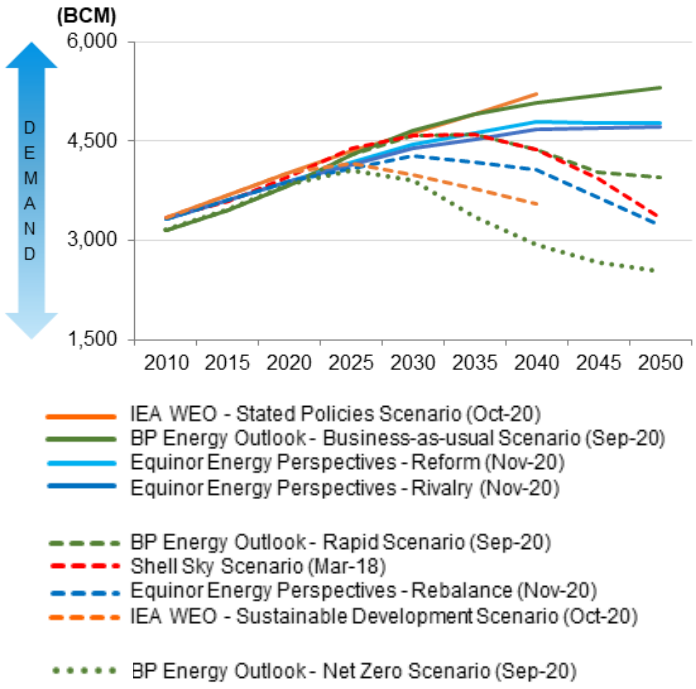
These external scenario analyses are a tool used to support business planning and identification of risks and opportunities. As part of this process, Canadian Natural considers a number of variables and assumptions related to markets, commodity prices, policy, regulation, technology development, energy efficiency and reputation, and incorporates a range of assumptions for lower carbon emissions environments. This process has influenced our investments in CCUS projects, including the potential use of molten carbonate fuel cells, a promising carbon capture technology and viable solution to reduce emissions while generating electricity. We have also identified valuable opportunities for lower carbon emissions products and support for renewable energy, such as using biodiesel in our haul trucks and the potential use of renewable energy for our facilities.

As the world evolves toward a lower carbon emissions energy system, we expect there will be less carbon intensive ways of producing and consuming crude oil and natural gas. Across the range of ambitious climate change scenarios, the expectation is that there will be substantial global production and consumption of crude oil and natural gas for decades to come. The IEA 2020 Sustainable Development Scenario (SDS) is a stringent climate scenario aligned with the Paris Agreement to hold rise in global temperature to well below 2°C and limit global temperature increases to 1.5°C. According to the IEA SDS, crude oil demand would be close to 65 million barrels per day by 2040 from 2019 levels of approximately 100 million barrels per day. While global demand was impacted in 2020 and 2021, the expectation is that crude oil and natural gas remains an important part of the global energy mix for the foreseeable future.

Global Crude Oil Demand Scenarios



Global Natural Gas Demand Scenarios



In addition, global demand for natural gas is generally expected to grow through 2030 and continue to be an important source of energy and a way to significantly lower global GHG emissions. Natural gas is an integral part of Canadian Natural's plan and the pathway to a lower carbon emissions future. As one of the largest natural gas producers in Canada, natural gas assets deliver improved environmental performance as a clean burning hydrocarbon.

Canadian Natural's balanced portfolio of light, synthetic, and heavy crude oil and natural gas represents one of the strongest and most diverse asset portfolios of any energy producer in the world. The strength of our assets, along with our integrated GHG emissions management strategy, helps to mitigate climate change risks to our reserves.

Climate and GHG Emissions Management

Governance and risk management

Robust governance and the effective and efficient management of sustainability issues is essential to the long-term success of our Company and continued value creation for shareholders. Our commitment to environmental stewardship is embedded throughout our decision-making processes.

Board oversight of climate change risks and opportunities

Canadian Natural's Board of Directors provides expertise and oversight on ESG factors, through the Health, Safety, Asset Integrity and Environmental (HSAI&E) Committee, and the Nominating, Governance and Risk Committee.

Risk identification and management

The Management Committee is responsible for the identification, assessment and management of climate-related risks and opportunities that have the potential to impact Canadian Natural. Our multi-disciplinary risk management process incorporates climate risks and opportunities, while considering current and evolving policies and regulations as part of our business evaluation, all of which is coordinated through our corporate ERM framework.

Aspects of climate change risk and opportunities that most influence our business strategy include: future regulatory changes and associated compliance costs, commodity price, access to markets and capital, social preferences, reputational and ESG aspects, and technology development, as described in more detail in our Annual Information Form.

Read more about our governance and oversight of climate-related risks in the Sustainability Governance and Stewardship section of our website.

Alignment to executive compensation

Canadian Natural's Board of Directors, through the Directors on the Compensation Committee, focus on aligning executive pay for performance, assessing the Corporation's performance including sustainability metrics related to safety, asset integrity and environment. Performance is evaluated against a specific target range and/or a benchmark determined by prior period performance, to drive continuous improvement. A Corporate Performance Scorecard published in our Management Information Circular sets out our annual performance goals and outlines the direct linkage between achieving these goals and the compensation paid. For example, the corporate GHG emissions intensity target range in 2020 was 0.046 to 0.056 tonnes/BOE to which Canadian Natural achieved 0.050 tonnes/BOE, a reduction from 2019.

ESG performance reporting

Performance results are reported internally through a management review process. Our external reporting aligns with recommendations from the Financial Stability Board (FSB) Task Force on Climate-Related Financial Disclosures (TCFD), the Sustainability Accounting Standards Board (SASB), and the Global Reporting Initiative (GRI), integrating financial and sustainability metrics. Our reporting is done through this annual sustainability report, CDP Climate Change Questionnaire, and financial disclosures, such as our Annual Information Form and Management Information Circular.

We engage with investors and stakeholders to better understand relevant factors viewed as important. As a result, our reporting levels for sustainability performance are assessed on an ongoing basis for potential enhancement and to ensure that we provide value to all our stakeholders.

> "As an industry and company, we are driving actionable plans to achieve net zero emissions in our oil sands operations that will help meet Canada's climate objectives while providing long-term economic and social benefits for Canadians. Developing and piloting technologies that can be effectively adopted across the industry, and other sectors, is an integral part of these plans."

Pamela McIntyre,
Senior Vice-President, Safety, Risk Management and Innovation

Integrated GHG emissions management strategy

Canadian Natural is strongly committed to doing our part to lower GHG emissions, and helping to position Canada as the supplier of choice for safe, secure, reliable, and environmentally responsible energy the world needs.

We are seeing meaningful results today and will continue to create long-term value on our journey to net zero oil sands (mining and thermal) emissions through a comprehensive strategy and investments in technology and innovation.

Our integrated GHG emissions management strategy includes:

- integrating emissions reduction in project planning and operations;
- leveraging technology to create value and enhance performance;
- investing in research and development (R&D) and supporting collaboration;
- focusing on continuous improvement to drive long-term emissions reductions;
- leading in Carbon Capture, Utilization and Sequestration or Storage (CCUS);
- engaging proactively in policy and regulation to effectively manage climate risks and opportunities, including trading capacity and offsetting emissions; and
- considering and developing new business opportunities and trends.

Steam generators at Jackfish thermal in situ facilities.

Climate and GHG Emissions Management

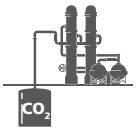
Canadian ingenuity and technology to deliver reductions

Our defined pathway to drive long-term GHG emissions reductions and improve efficiencies is anchored in the development and adoption of technology. Emissions reductions at our oil sands operations are driven by a number of technologies and projects, lowering the carbon intensity of our production.

- **Leadership in CCUS projects**
  We integrate state-of-the-art carbon reduction technologies in our projects, taking waste carbon dioxide (CO_2) from our operations and using it as an input to improve performance and create value. A portion of the CO_2 for these projects at Horizon, Scotford and North West Redwater (NWR) Sturgeon Refinery, is captured from hydrogen manufacturing plants, producing "blue hydrogen" – hydrogen with reduced GHG emissions associated with the production process.

Canadian Natural is the largest owner of carbon capture capacity

in the Canadian crude oil and natural gas sector.



Combined projects have 2.7 MT CO_2e/year capture capacity

the same as taking ~576,000 passenger vehicles off the road per year *(based on data from the Global Carbon Capture and Storage Institute).*

5 million tonnes of CO_2 captured and safely stored

over five years at the Quest CCS facility where CO_2 is captured from the Scotford Upgrader. Quest and the upgrader are part of the Athabasca Oil Sands Project, of which Canadian Natural has a 70% ownership interest.

We are a 50% partner in NWR

which supplies CO_2 to the **Alberta Carbon Trunk Line**, an integrated CCUS system that can transport and store 14.6 MT CO_2/year for EOR.

CO_2 for use in Enhanced Oil Recovery (EOR)

captured at the Hays natural gas plant.

CO_2 captured from Horizon's hydrogen plant is added to the tailings pond

reducing GHG emissions and improving tailings performance.

- **Technology development and execution**
  Canadian Natural is actively evaluating and developing a wide range of unique projects with the potential to make a significant difference in emissions intensity reduction. We also implement efficiencies to increase productivity and reduce our environmental footprint. Technology and operational efficiency projects are profiled in our Advancing Innovation section, on pages 25-31**.**
- **Carbon conversion**
  Through our partnership with Inter Pipeline Ltd., we have been capturing the off-gas (natural gas liquids and olefins) from the Horizon upgrader. The liquids extracted are transported via pipeline to Inter Pipeline's Redwater facility. The remaining gas, now cleaner, is sent back to our upgrader, mixed with natural gas and then used as lower emissions fuel. This project has avoided more than 550,000 tonnes of CO_2 emissions equivalent since 2016.

- **Methane emissions reductions**
  Effective programs we implemented include:

  - Solution gas conservation projects, to reduce venting through the management of compressor units and tie-in of wells and multi-well pads in our primary heavy oil operations. Through our pneumatic controller retrofit project, between 2018 and 2020 we also conserved 535,000 tonnes of CO_2e, removing or replacing pneumatic devices with low-emitting ones.

  - We continue to execute our Fugitive Emissions Management Program for leak detection and repair (LDAR). In 2020, we conducted over 4,700 comprehensive fugitive emission surveys using optical gas imaging cameras, and conducted fugitive emission screenings at over 25,000 wells across NA E&P operations.

    Canadian Natural, with the support of Emissions Reduction Alberta (ERA), has implemented Alternative Fugitive Emissions Management Program pilots in 2021 under the jurisdiction of the Alberta Energy Regulator (AER). These pilots are deploying emerging technologies across 2,500 facilities in our NA E&P operations to evaluate technology performance and validate forecasted emission and cost reductions. Commercialization of technologies that offer accelerated detection and accurate characterization of methane emissions will assist industry in continuous improvement of LDAR efficiencies and overall methane emission reductions.

    At Horizon, we completed a four-year monitoring and research project for the quantification of fugitive emissions from tailings ponds and mines. This study was completed in collaboration with industry, universities and equipment suppliers. Research is revealing that new technologies can perform better than current ones, providing seasonal and 24-hour variations, and longer monitoring intervals, resulting in an improved representation of emissions overall.

Solution gas conservation compressor unit at Bonnyville facilities.

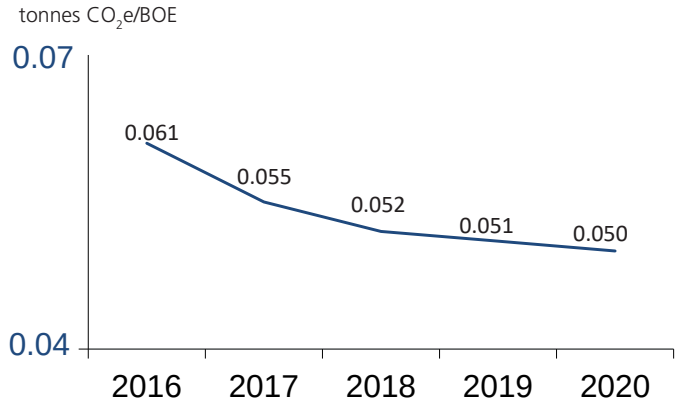
GreenLITE™ installation at the tailings pond.

- **Natural gas production as a lower emissions intensity source for global markets**
  Canadian Natural's natural gas assets are an important part of our balanced portfolio. Natural gas is a reliable and affordable energy source for power generation, with less than half the carbon footprint of coal. Canada can help reduce net global emissions by supplying Liquefied Natural Gas (LNG) to global markets. Canadian LNG projects are projected to provide leading GHG performance and a preferred source of energy in a lower carbon emissions economy. These net global emission reductions are expected to receive recognition domestically and internationally as contributing towards Canada's climate change commitments.
- **Natural gas to power local communities**
  Our International operations supply natural gas to CDI for electricity generation. Natural gas produced at the Espoir and Baobab Fields is exported via subsea pipeline through the Adjue Terminal onshore and distributed to the Abidjan Power Station, representing about 23% of the country's electricity demand.

- **Cogeneration power**
  In our oil sands mining and upgrading operations, and Primrose and Wolf Lake (PAW) thermal operations, we use natural gas to create power through cogeneration units. Cogeneration allows these facilities to simultaneously produce electricity and recover waste heat to meet the sites' steam and electricity demands. By using the waste heat to make steam, we help reduce emissions as our energy consumption is lower than it would be if we produced electricity and heat energy separately.
- **Renewables**
  As we advance innovation, oil and natural gas production provides a foundation to incorporate opportunities for lower carbon emission products, to support renewable energy, and to find new markets for our products.
    - **Essential commodities**
      Heavy minerals and rare earths, such as vanadium, nickel, zircon and titanium, are important elements as inputs for the renewables industry. We are looking at methods to recover these commodities from our bitumen and tailings streams. These projects are highlighted on page 27 of the Advancing Innovation section.
    - **Renewable energy sources for electricity**
      At our Septimus and Noel natural gas processing plants in BC, we use hydroelectricity to drive electric compressor motors. Septimus has avoided 559,162 tonnes of CO_2e since 2011 when it started operating, while Noel has avoided 98,699 tonnes since we gained ownership of the plant in 2014.

Leading Performance

Corporate Scope 1 (Direct), GHG Emissions Intensity



Air emissions and industry performance in the oil sands region

Canadian Natural is an active participant in the Wood Buffalo Environmental Association (WBEA), a collaboration of communities, environmental groups, industry, government and Indigenous stakeholders. WBEA manages programs that include air, land and human exposure monitoring, and operates the most extensive ambient air network in Alberta.

The latest WBEA Annual Report indicates that the Air Quality Health Index (AQHI) in the region is very low risk. The AQHI, which measures level of health risk associated with local outdoor air quality on an hourly basis, shows 96.23% to 98.53% of low risk across the different air monitoring stations, including the Fort McKay community stations' measurements.

The WBEA has monitored forest health in the region for the effects of oil sands air and dust emissions since 1996. The latest terrestrial report shows that oxides of nitrogen (NOx) and sulphur oxides (SOx) emissions have declined and air quality in the region continues to improve.

SOx concentration measurements show that between 2015 and 2017 hotspots decreased to below 1.5 ppb from 2.5 ppb that was recorded between 2000 and 2005. NOx emissions have shown a steady decline both in peak concentrations (3 ppb) and area impacted since 2008. For reference, the World Health Organization's guideline for the annual average concentration of NOx is 21.2 ppb.

↓18% Reduction
corporate GHG emissions intensity since 2016

↓28% Reduction
methane emissions since 2016

↓54% Reduction
GHG emissions intensity in oil sands mining since 2016

CO_2

12.5 million tonnes of CO_2e conserved since 2016 in primary heavy crude oil and in situ oil sands operations

equivalent to removing 2.7 million passenger vehicles from the road over the same period

Environmental stewardship is embedded in all phases of our activities.

Our Environmental Management System (EMS) provides the structure to identify and assess environmental risks and minimize impacts in all phases of our projects, from planning through to design, operation and final reclamation. We focus on continuous improvement through comprehensive practices, investments in technology and innovation, and collaborations with a range of groups. We identify opportunities for improvement, developing action plans and setting key indicators to measure our performance across our operations.

Regular environmental inspections, audits and monitoring are part of our EMS process. Our teams ensure regulatory compliance and verify that effective mitigations and controls are in place for the management of emissions, land and water use, biodiversity, tailings, spills and waste. Due to COVID-19 related public health restrictions in 2020, we temporarily deferred non-critical activities, such as low-risk well abandonments and reclamation monitoring, in order to minimize staffing levels on our work sites. Critical activities, such as water monitoring, safely continued. All required monitoring activities resumed in July 2020.

EMS integration

Alignment of our management systems is essential in our ability to meet corporate goals. EMS integration is also a key focus during any significant acquisition. For example, the integration of Albian into our oil sands mining operations highlighted the benefits and opportunity of extending the Mining Association of Canada (MAC) Towards Sustainable Mining (TSM) performance standards and audits to our Horizon operations.

Land and biodiversity

Canadian Natural develops every project with a vision and plan to manage our impact on the land. Avoidance planning and mitigation actions preserve natural habitat and species. Our reclamation programs establish native vegetation to promote biodiversity, wildlife habitat and a range of land uses.

Progressive reclamation is a highly technical activity that ensures when part of a site is no longer required for operations, it is quickly and efficiently returned to nature. Companies work together with regulators to ensure that disturbed lands are returned to a self-sustaining state upon completion of our activities, continually advancing reclamation knowledge and innovation. With record numbers of projects completed, Canadian Natural is an industry leader for abandonment, reclamation and facility decommissioning in Canada and offshore UK.

Area-based programs in NA E&P operations

In our conventional and thermal operations, we have been using an area-based approach since our first pilot in 2013 to strategically reclaim large contiguous areas. This program geographically groups projects (well and pipeline abandonments, remediation and reclamation activities), and coordinates people, equipment and technologies. In this way, we are taking sites out of service in a safe and environmentally sound manner, while reducing reclamation costs and times from three to five years to two to four years. Through the area-based reclamation program we've abandoned 5,570 inactive wells in the last five years.

The area-based program is an industry-leading approach that has become the go-to model to accelerate the pace of reclamation. The Alberta Energy Regulator expanded this program across industry for closure of inactive sites.

We continue to actively research and monitor the ecological performance of reclaimed areas and incorporate these results into our processes to further improve revegetation. Our reclamation research and trials include native prairie, wetland and pad reclamation. We also worked with industry and regulators, through the Petroleum Technology Alliance of Canada (PTAC), on outcome-based remediation targets that reduce excavation and disposal, allowing for faster re-vegetation of sites while protecting biodiversity.

To date, we have planted almost 2.5 million trees in our NA E&P operations. Over 500,000 trees were planted in 2020, prioritizing diversity of species.

Canadian Natural is working with Indigenous businesses and contractors to continue advancing reclamation and site closure work. Read our Working Together with Communities section on page 43 for more information.

Facility decommissioning and reclamation project in Saskatchewan.

UN Sustainable Development Goals (SDGs) in this section

Tailings reclamation

The South Expansion Area (SEA) at our Muskeg River Mine, part of our Albian operations, is the first tailings facility in the oil sands mining region to follow the new requirements under Alberta's Dam and Canal Safety Directive (2018). The Directive requires the operator to present a plan and obtain authorization from the AER for the decommissioning and closure of the facility that ensures the stability and safety of the landform. Canadian Natural has transformed the site into a reclamation area that includes natural landscape features, such as streams, wetlands and upland forest areas with hummocks to create a variety of natural wildlife habitat. A mixed forest was planted using trees and shrubs grown from seeds collected locally. We expect to achieve final reclamation of approximately 295 hectares in this area during 2021 (13 years after first disturbance).

Our tailings technologies focus on preventing and treating fluid tailings (FT), a mix of water and clay that takes time to settle. Horizon and Albian's tailings fines capture performance continues to be above industry conventional tailings capture rates through innovative processes. CO_2 injection in our tailings is an important part of the process. Our technologies are ultimately helping accelerate water recycling and reclamation.

Read the Managing Tailings section on our website for more information.

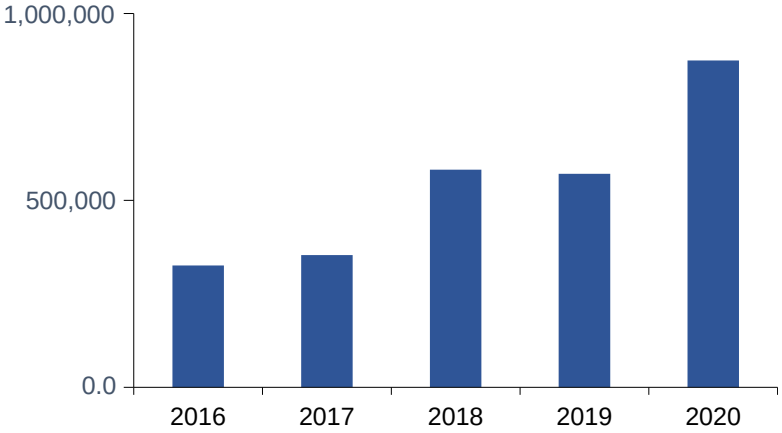
Active Pond
July 2018

Reclaimed Area
October 2020

Progressive reclamation in the oil sands region

Oil sands development is subject to some of the strictest reclamation standards in the world. Reclaimed sites are monitored continuously for years afterwards to ensure a sustainable ecosystem is integrating successfully with the surrounding natural habitat. We have worked with local communities and industry to advance monitoring and research programs, incorporate traditional knowledge and improve reforestation practices. Canadian Natural collaborated with Fort McKay Elders to implement traditional protocols for tree planting, including smudge ceremonies and tobacco blessings.

Trees Planted in Oil Sands Mining



3.4 million

total trees planted at Albian since 2002 and Horizon since 2009

One millionth reclamation tree planted at Albian

As part of our commitment to return lands to a self-sustaining state, trees are a key part of successful reclamation. In late 2020, the one millionth tree seedling was planted at the Albian site. Horizon reached the one millionth reclamation tree milestone in 2018. To date, 3.4 million trees were planted in our oil sands mining operations.

Planting a variety of trees, shrubs and other vegetation is one of the final steps in the reclamation process. Vegetation helps retain moisture, reduce erosion, attract birds and wildlife, and provide nesting opportunities. To facilitate high quality seedlings for planting, Canadian Natural partners with the COSIA Oil Sands Vegetation Cooperative that works to harvest and bank local seeds for companies to use.

One millionth reclamation tree planted at Albian

Leading technologies for platform decommissioning

Offshore decommissioning projects are complex and require substantial planning to execute safely and efficiently. They include the following key steps: regulatory approval, well plug and abandonment, removal of hazardous materials and cleaning, as well as topsides and jacket removal and disposal. Platform decommissioning projects are relatively new in the industry and every year we're making headway with better technology, engineering and regulatory guidance.

Topsides removal has historically been a time consuming and expensive process. When we decommissioned our Murchison platform, the topsides were removed piece by piece, and it took 26 heavy lifts over 111 days of vessel time. Since then, the technology for removing topsides has progressed. Using the world's largest construction vessel — the Allseas Pioneering Spirit — the topsides for the Ninian North Platform were removed in a single lift over seven days, significantly reducing safety exposure and risk of incidents. This took significant planning and preparation work, both onshore and offshore, with the project team collaborating on the development of new cutting techniques and complex engineering to ensure structure stability. After the lift, the Ninian North topsides were moved to an onshore location on the Shetland Islands for dismantling. Over 97% of the topsides materials will be recycled.

When starting any project, we plan for the full lifecycle cost until project completion. It's this forward looking, full cycle planning process — and our culture of innovation, safety and continuous improvement — that has made Canadian Natural's International team a leader in offshore decommissioning projects.

Ninian North Platform topsides being transported to the quay (platform for loading/unloading vessels).

Ninian North Platform topsides. Credit: Lerwick Port Authority/ Shetland Flyer Aerial Media.

Video Spotlight

Collaboration Drives Innovation Success

James Agate, Reclamation Manager at Canadian Natural, explains how COSIA helps companies drive clean tech innovation.

Oil Sands Vegetation Cooperative (OSVC)

Robert Vassov, Reclamation Operations Lead at Canadian Natural, discusses the collaborative effort to harvest and bank seeds from a wide variety of species.

Ninian North Platform Decommissioning

Timelapse video highlights the steps required for topside removal and transport of an offshore platform. Timelapse photography credit: Allseas.

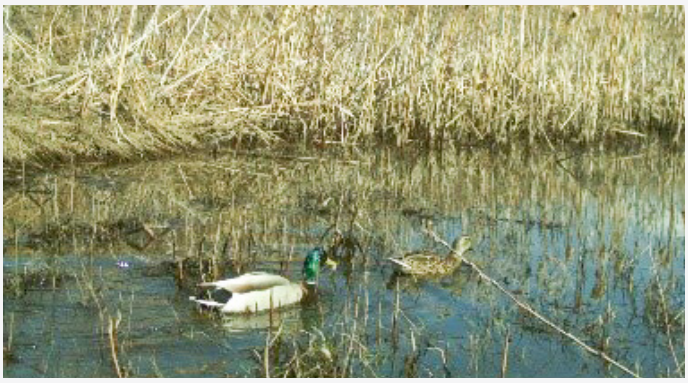
Horizon Lake, also known as Wãpan Sãkahikan in Cree, is an 80-hectare compensation lake developed in close consultation with local people.

Cutting edge science for aquatic and terrestrial monitoring

Successfully reclaiming oil sands operations is an important part of our commitment to reducing our environmental impact. The Early Successional Wildlife Dynamics program is a comprehensive monitoring project led by Canadian Natural through COSIA to measure the success of reclamation across multiple oil sands operations. Since its inception in 2016, the program has shown that a diversity of species typically found in mature boreal forests are returning to and re-establishing on older reclaimed sites (greater than 20 years), including insects, small mammals, amphibians and birds. As part of this project, we're using motion activated cameras and autonomous recording units (ARUs) to record sights and sounds of birds and animals, such as bats, on reclaimed sites.

We're also using Environmental DNA (eDNA) to identify wildlife species on natural and reclaimed sites, including fish and amphibians in our compensation lakes. Compensation lakes are designed to support the habitat requirements of selected native fish species and provide the structure for a natural system to evolve. Research and monitoring takes place to observe progress and verify use of constructed fish habitat, advancing the science of building lakes. Pilot studies were conducted at Jackpine, Mrs. T's and Horizon Lakes using eDNA methods, in conjunction with traditional fishing/capture monitoring methods, to detect naturally occurring fish species present in the lakes, including arctic grayling and burbot. Study samples revealed more species in the aquatic community than conventional sampling methods, demonstrating that eDNA results can also help profile fish communities and document the progression of compensation lakes over time. In addition, another eDNA pilot was conducted to detect all life stages of the Canadian toad and help with relocation in advance of mining. eDNA is a cost-effective monitoring tool as multiple species can be detected from a single environmental sample.

Environmental monitoring allows us to continually measure our performance, establish targets and work towards improvement. For example, Canadian Natural is part of the Oil Sands Monitoring (OSM) program, a multi-stakeholder group that involves 18 Indigenous communities, government and industry, as well as research scientists and monitoring organizations. Through the OSM, we coordinate our monitoring programs with regional findings to provide transparent information to the public. This collaborative process integrates science and traditional monitoring to detect changes in the environment.



Mallard and black bear photos taken from motion activated cameras.

Biodiversity and wildlife

We assess our impact and incorporate long-term biodiversity and reclamation planning into our programs to maintain regional characteristics and reduce impacts on wildlife. Monitoring of wildlife, biodiversity, aquatic ecosystems and reclamation provide us with data to improve mitigation and deterrent programs. Research and monitoring programs to improve reclamation practices support biodiversity and wildlife through the re-establishment of important soil functions and vegetation species that are crucial to restoring habitat for species, such as caribou, and natural ecosystems, such as wetlands, across our operating areas. Highlights of our activities include:

- **Caribou conservation and restoration strategies**

  Work with government, industry, academia and stakeholders continues to ensure a shared working landscape that allows caribou to co-exist with responsible development of resources. Canadian Natural completed restoration and revegetation of over 200 km of legacy seismic lines in northeastern Alberta with the Forest Resource Improvement Association of Alberta (FRIAA) and Alberta Environment and Parks, which included planting of over 73,100 trees. This project is being used as a template for future seismic restoration projects that will be developed in association with area-based closure projects.

- **Protected areas**

  Through a conservation agreement with Environment and Climate Change Canada (ECCC), we have established a 10,000+ hectare area of land on and around the Horizon South mine leases to prevent disturbance and protect three species at risk. This area represents about 29% of the lease area, and the project includes monitoring programs to ensure the habitat remains viable for those species until the Horizon South mine is fully reclaimed, or other similar lands are identified for those species.

Water use

Canadian Natural's water management strategies focus on managing water use effectively and efficiently to reduce fresh water use and protect water sources. To do this, we apply technologies that maximize produced water recycling and use saline water for steam generation to reduce fresh water use.

Our corporate water governance approach includes performance reporting with consistent industry metrics, and collaboration with industry and other stakeholders to achieve responsible and sustainable water use, supporting water stewardship initiatives that promote better water use.

Highlights of our water performance include:

- **Increased recycle rates in thermal in situ operations**

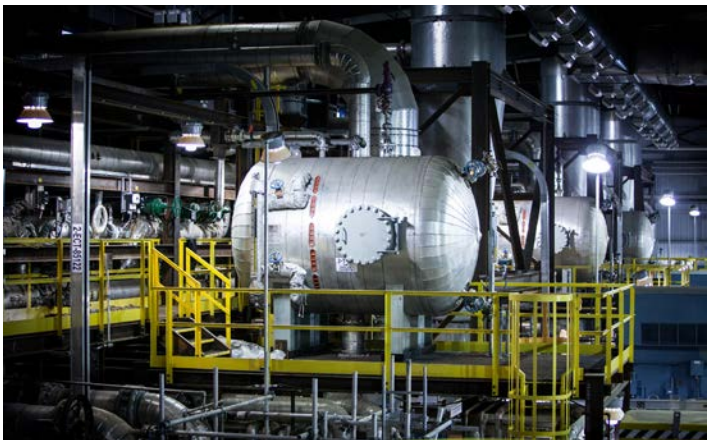
  Average fresh water use is at historic lows at PAW and Kirby. At PAW, fresh water use was down by 15% and recycled produced water volumes up by 3% from 2019 (for reference, 87% of the total water used in 2020 was recycled produced water).

  At Kirby, fresh groundwater use decreased 16% and produced water recycling increased 3% compared to 2019. At Jackfish, the first commercial steam-assisted gravity drainage project to use 100% saline water for steam generation, the water recycling rate is 94% (a 4% increase from 2019).

- **Tailings reduction technologies as part of water management**

  CO_2 addition to tailings and other technologies help maintain a high water recycle rate at our oil sands mining and upgrading operations, limiting fresh water withdrawals from the Athabasca River to 30% of our annual licensed allocation. River water use intensity decreased in 2020 by 10% at Horizon (from 1.94 to 1.92 barrels of water per barrel of synthetic crude oil), and by 11% at Albian (from 1.18 to 1.05 barrels of water per barrel of bitumen) compared to 2019.

Boreal woodland caribou.



Kirby South water filtration facility.

Industry best practices

Canadian crude oil and natural gas are produced under some of the highest standards in the world, including strict water use regulations for fresh water withdrawals, waste water disposal and hydraulic fracturing. In collaboration with industry, we continue to improve water use through best practices, innovation and shared results. We also work with other operators to share water allocations and infrastructure, which helps conserve water while reducing costs.

COSIA members have targets to reduce fresh water use intensity by 30% at oil sands mining and by 50% at in situ operations from 2012 levels by 2020, achieving 36% and 47% reductions, respectively, to date. According to the AER's 2019 Water Use Performance Report, from all fresh water for industries in the province, only 13% was allocated to oil and natural gas extraction. Our industry only used 20% of its allocation.

Groundwater monitoring

Assessing groundwater quality and levels for potential changes is a critical component of our environmental monitoring programs. Canadian Natural's extensive groundwater monitoring network consists of more than 7,690 wells in NA E&P and 270 wells in our oil sands mining operations, which are routinely sampled and reported on. Any change is assessed against environmental and regulatory requirements, and historic values.

Water treatment technologies

Canadian Natural is building a reverse osmosis water treatment system for brackish water at PAW, designed to treat 20,000 m^3/day of brackish water. The higher quality, treated water will be used as make-up boiler feed water, and will reduce fouling and corrosion of the surface facilities and improve well productivity. This project, which will continue to help us reduce fresh water use at the plant, is targeted to be commissioned by the end of 2022.

Waste Management

A comprehensive waste management program is also part of our EMS to reduce impacts on the environment. We work to minimize and reduce site-generated waste using technology and optimizing processes, including recycling, re-use and recovery whenever possible.

Canadian Natural is one of the few producers with its own infrastructure for sand handling, water treatment and oil processing. By integrating waste management facilities into our activities and using them effectively, we improve waste management, reduce our environmental footprint, and decrease transportation distances and costs. We also have a number of landfills in our NA E&P operations accepting production, drilling and reclamation/remediation materials, and two landfills in our oil sands mining and upgrading sites for operational, construction and camp waste. Through joint venture agreements with other companies, some of our landfills are now accepting third-party material, further reducing transportation and allowing support for remediation projects and operational efficiencies.

All our landfills are properly managed. Some sites are progressively capped as the cells fill and others are completely capped at end of life. As the cells reach capacity, we cap them with an impermeable layer and cover that with subsoil and topsoil that has been reserved from the original development of the landfill, and then seed with native grasses. Water management, site inspections and groundwater monitoring occur for a minimum of 25 years post-closure to ensure the waste pile is encapsulated and there are no impacts to the surrounding environment.

In our UK operations, 11% of our total waste was diverted from the landfill to generate electricity working with our waste management contractors, and 70% was sent to recycling.

Reverse osmosis water treatment system.

Steam generators at Kirby North.

2021 Areas of Focus

- Enhance audit protocol to assess regulatory compliance for major facilities and acquisitions.
- Continue advancing abandonment, reclamation and platform decommissioning projects across our operations.
- Complete MAC TSM external verification for oil sands mining operations, and maintain ISO14001:2015 Certification for UK operations.
- Continue to improve water recycle rates to meet our water use intensity targets.
- Complete reclamation and biodiversity work, including research and monitoring.

Priorities in 2020

Environmental Management System (EMS)

- Align NA E&P environmental procedures to complete Company-wide EMS integration.
- Complete requirements for our integrated mining operations to meet the Mining Association of Canada (MAC) Towards Sustainable Mining (TSM) standards.
- Maintain ISO14001:2015 Certification for UK operations.
- Continue to reduce spill volumes and numbers through analysis of cause and type of spill.

Regulatory

- Implement improvements for environmental monitoring and reporting of *Alberta Environmental Protection and Enhancement Act (AEPEA)* conditions to enhance tracking and resolution of incidents.

Water Use

- Continue to improve water recycle rates across our major thermal and oil sands mining and upgrading operations, to meet our water use targets.
- Continue research and collaboration work to advance mine closure.

Accomplishments in 2020

Aligned procedures for all operations

Completed internal self-assessment and action items ahead of the MAC external verification

Completed ISO certification

Developed programs for consistency in environmental monitoring and reporting in our thermal operations

↓17%
Spill Reduction
across operations vs 2019

Improved standardized reporting of air emissions, and monitoring of wetlands and groundwater

Produced Water Recycle Rate

94% at Kirby

94% at Jackfish (100% saline water use)

90% at PAW

Conducted research trials on bioremediation of process affected waters

↓86% Reduction fresh water use intensity at PAW since 2008

84% of Water used in oil sands mining is recycled water

Less than 30% Of our authorized water limit is withdrawn from the Athabasca River

Environment

Priorities in 2020

Biodiversity and Wildlife Management

- Integrate our monitoring programs with other regional monitoring to improve understanding of changes to biodiversity and wildlife, working with industry and Indigenous communities to enhance programs.
- Work on wetland and caribou plans aligned with AEPEA reporting requirements.

Research and Development

- Complete a synthesis report on findings of Fugitive Emissions Monitoring program and prepare recommendations for alternative methods to measure emissions.
- Activate long-range, real-time, radar to monitor bird migration and reduce bird contact with tailings ponds.
- Assess tailings pond reclamation research.

Abandonment and Reclamation

- Continue advancing reclamation projects across our Canadian operations.
- Complete abandonment of Murchison subsea well by setting final well barriers, and recovering seabed equipment.
- Complete topside removal and disposal campaign for Ninian North platform, for dismantlement and recycling.

Accomplishments in 2020

Integrated autonomous recording units with regional programs to study impacts on migratory birds, bats and amphibians

Wetland monitoring program designed to integrate with regional monitoring

Caribou management plans completed or updated for all facilities in caribou ranges

Identified large contiguous areas for seismic restoration efforts

Study completed for better representation of methane and CO_2 emissions using newer technologies

Installed long-range radar systems to avoid bird collisions with aircraft, and to complement short-range deterrent system in tailings pond

Submitted NST research plan to regulator

Reduced number of birds contacting tailings ponds

Industry Leading in 2020

1,065
INACTIVE WELLS ABANDONED

1,050
RECLAMATION CERTIFICATES SUBMITTED

854
RECLAMATION CERTIFICATES RECEIVED

the most of any operator in Western Canada

Reclamation

5.9
MILLION TREES PLANTED
to date across operations

9,200+
HECTARES RECLAIMED
in NA E&P since 2016; equivalent to ~11,300 Canadian football fields

1,981
HECTARES RECLAIMED
to date in oil sands mining

Platform Decommissioning

REMOVED
Ninian North topsides safely

97%
of material expected to be recycled

Completed Murchison platform abandonment

Banff and Kyle FPSO and field decommissioning underway

Canadian Natural's culture of leveraging technology and innovation is key to driving sustainable operations and long-term value.

As an industry-leading R&D investor, Canadian Natural drives continuous improvement in environmental and operational performance. We do this by focusing on being more effective and efficient, unlocking reserves and increasing production. Our projects include CCUS, tailings and water management, and steam efficiencies.

To accelerate innovation, our technology development model focuses on:

1. understanding our business challenges and opportunities;
2. finding and assessing technology; and
3. connecting employees with projects, R&D and technologies in the most efficient and cost-effective way.

Every day, employees at Canadian Natural are accelerating technology development by reducing risk and taking technologies from lab concept to pilots and on to commercialization. We encourage a culture of entrepreneurship where team members are involved in providing and developing solutions, working together with subject matter experts to maximize opportunities and transfer technology and efficiencies across our operations.

$3.9 billion
invested in R&D since 2009

$48 million
invested in research and technology development to reduce GHG emissions in 2020

2nd highest
R&D investor in Canadian oil and natural gas industry*

** Per Infosource Inc. Canada's Top 100 Corporate R&D Spenders 2020.*

Working collaboratively

New technology takes time to test and commercialize, making collaboration essential when evaluating and leveraging R&D investments. We work with entrepreneurs, industry, academia, and government, sharing knowledge and accelerating research and technology implementation to find innovative solutions to industry's environmental challenges.

Canadian Natural is a founding member of COSIA. In 2020 alone, Canadian Natural led 43 projects and participated in another 31 projects at COSIA. To date, our company has shared $168 million in tailings, $115 million in water, $42 million in GHG and $41 million in reclamation research and innovation through COSIA.

Our longstanding collaborations include the Clean Resource Innovation Network (CRIN), the Petroleum Technology Alliance of Canada (PTAC), the Petroleum Technology Research Centre (PTRC), the Natural Gas Innovation Fund (NGIF) and the British Columbia Oil and Gas Research and Innovation Society (BC OGRIS).

Industry also works with government and regulators to develop policies and guidelines that enable continuous improvement and investment in environmental performance, such as GHG and methane emissions reductions, tailings management and caribou restoration.

Reducing GHG emissions

Canadian Natural has a core team made up of technical staff from every division in the company. This group identifies projects and initiatives that support our overall GHG emissions reduction strategy, including leveraging technology and evaluating opportunities for further investments.

New technologies and continuous improvement opportunities are being evaluated, piloted and/or implemented at Canadian Natural and within the industry. By leveraging technology and innovation to reduce emissions, we are advancing achievement of our GHG targets and, ultimately, our aspirational goal of net zero emissions in the oil sands.

UN Sustainable Development Goals (SDGs) in this section

Advancing Innovation

Journey to Net Zero

Near-Term Actions

- IPEP pilot
- Molten carbonate fuel cells pilot
- Solvent EOR pilots
- NRG COSIA Carbon XPRIZE
- Enhanced detection and measurement technologies for fugitive emissions reduction
- Pneumatic retrofits
- Ultra-low emissions heavy oil pad
- Advanced data analytics/digital operationalization
- CCUS
  - Horizon's CO_2 utilization
  - Quest CCS project
  - North West Refinery (CO_2 utilization)/Alberta Carbon Trunk Line

Medium-Term Actions

- IPEP commercialization
- Molten carbonate fuel cells commercialization
- Solvent EOR commercialization
- Technology separating minerals from tailings stream
- Leverage CCUS expertise to optimize projects
- Advanced data analytics/digital operationalization

Long-Term Actions

- Expand/develop future CCUS projects
- Carbon capture and conversion (carbon fibers, asphalts, plastics)
- Advanced data analytics/ digital operationalization

Operational efficiencies

Applied technologies and day-to-day operational efficiencies create value by increasing productivity and reducing energy consumption in cost-effective ways. For instance, enhanced steam production reduces GHG emissions and energy costs.

Over the years, thermal operations teams have focused on de-risking new technologies to economically reduce both GHG emissions and fresh water use intensities. Thermal's fresh water intensity has been reduced by 75% since 2012, primarily by using brackish water for steam injection and improving the productivity of the reservoir.

We are also applying advanced data analytics on several projects to:

- Improve water treatment performance of the hot lime softener at Jackfish, removing hardness, minerals and solids from produced water used as steam-assisted gravity drainage (SAGD) boiler feed. A software program creates predictions of output variables, improves chemical efficiencies and steam throughput, helping reduce vessel upsets.
- Develop a prototype of a real-time heat exchanger efficiency dashboard to visualize and monitor the plant and conserve waste heat, reducing emissions in the process.
- Optimize steam generation efficiency, reducing GHG emissions and water use through our in-house built steam quality control algorithm at Primrose. The algorithm helps to reduce variations in steam quality by properly adjusting the fuel gas rate. Trials have also shown the potential to increase steam quality from 80% to 83% with no significant increase in scale deposits and erosion, representing a 0.5% to 1% reduction in GHG emissions intensity.

Ongoing opportunities for the clean technology sector

Technology and innovation are keys to success in a lower carbon emissions future. We are investing in and supporting many projects, such as power from natural gas, CCUS (and blue hydrogen), expanding on uses for bitumen and providing excess energy that can be returned to the electrical grid or used in other processes.

As we advance innovation, oil and natural gas production provides a foundation to incorporate many valuable opportunities for lower carbon emission products and to support renewable energy. Canadian Natural and industry continue to look for opportunities and ways to incorporate solutions to become more effective and efficient, and find new markets for our products.

In addition to progressing to net zero emissions at our oil sands operations, these investments will accelerate the clean tech sector across the country. Canada's oil and natural gas companies make significant investments on clean tech initiatives.

Through COSIA and with other partners, we are transforming waste CO_2 emissions into useful products, from enhanced concrete to plastics, liquid fuel and carbon fiber. The NRG COSIA Carbon XPRIZE global competition challenged entrepreneurs and innovators to develop breakthrough technologies. The two award-winning technologies, announced in 2021, converted the most CO_2 into products with the highest value, while minimizing their overall footprint in terms of emissions and land, water, and energy use.

Some of the technologies and research we are working on to support our aspiration of net zero emissions in our oil sands operations and to reduce our environmental footprint are featured in the following technology summaries.

Investing in Renewables

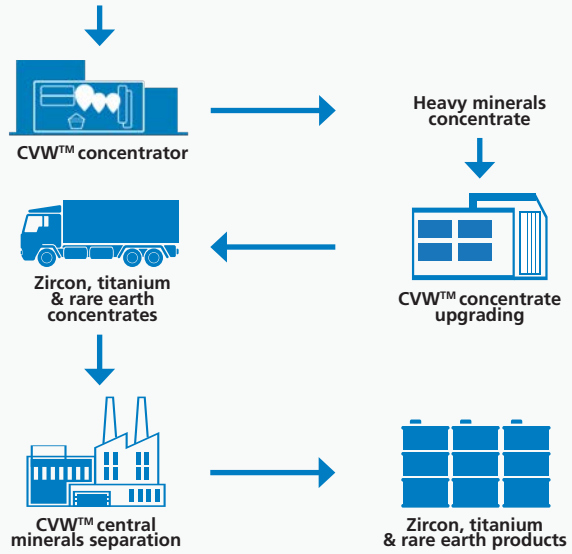
Essentials for the renewables industry

Vanadium and nickel are essential to building longer-lasting batteries in the electrification sector. These elements appear in trace concentrations in Canadian Natural's bitumen streams. We are looking at methods of capturing vanadium and nickel as part of our synthetic oil generation process.

We are also working with Titanium Corporation on a project to recover valuable commodities from our tailings stream. We are currently evaluating the potential deployment of Titanium's froth treatment tailings technology to recover bitumen, solvents, heavy minerals and rare earths, such as **zircon and titanium**. This technology could have a large impact on future GHG emissions reduction.

Additionally, Canadian Natural is exploring methods of converting petroleum coke, a byproduct from our upgrading process that is made of almost pure carbon, into super capacitors – a vital part of the energy storage market.

Titanium Corporation froth treatment technology



Biodiesel to reduce emissions

When used as a replacement for diesel, **biodiesel** can reduce a diesel engine's overall emissions up to 75%. Not only are we evaluating the use of biodiesel in our haul trucks and other facilities, we are also investigating methods to generate our own biodiesel, either through partnerships or generation via waste streams at our facilities.

Renewable energy for our facilities

Geothermal is heat that comes from within the sub-surface of the earth. It is renewable, reliable and has a small environmental footprint. For Canadian Natural, geothermal offers an opportunity to provide heat and/or electricity to our industrial processes. We are currently looking at the potential development of various geothermal technologies to support our energy requirements and potentially give back to the grid.

Solar and wind energy supplements

Our energy requirements are diverse among our facilities. We are actively evaluating the opportunities to add solar and wind stations to supplement the electrical needs of our existing and new facilities.

Additional value-added opportunities

We are also looking at the development of electrification for haul trucks in our mines and/or potentially introducing hydrogen fuel cells to help reduce their GHG emissions intensity.

Advancing Innovation

Carbon Utilization

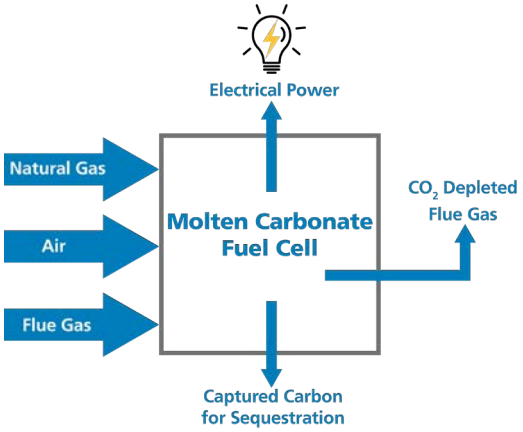
Molten Carbonate Fuel Cells (MCFC) - Capturing CO_2 for Electricity Generation

A typical fuel cell converts chemical energy from a fuel into electricity. We are exploring using fuel cells to capture CO_2 from natural gas-fired processing units to generate low GHG-intensity electricity and flue gas. A pilot project feasibility study has shown promising results thus far.

Next steps:
The COSIA MCFC Joint Industry Project, led by Canadian Natural, is planning to pilot a 1.4 megawatt MCFC power generation project at the Scotford Upgrader. The project will be funded (40%) by Emissions Reduction Alberta and is targeted to start-up in 2022.

Benefits:

- Reduce GHGs by capturing CO_2 to generate electricity
- Offset carbon capture costs through generation of electricity for on-site use or for exporting to the Alberta grid
- Diversify from flue gas to potentially carbon-free/zero emission electricity and flue gas production



Bitumen Beyond Combustion - Uncovering new, high-value uses for bitumen

Bitumen is primarily used for making combustion products like fuels. Canadian Natural is part of Alberta Innovates' Bitumen Beyond Combustion (BBC) program, designed to explore alternative, non-combustion uses for bitumen, such as the manufacturing of carbon fiber, asphalts for roads, and compostable and biodegradable polymers.

Next steps:
In 2019, seven projects received funding from the BBC program to advance their technologies. Canadian Natural, together with other oil sands companies, industries, material science companies, and academic researchers, continues to research potential new uses for, and methods of utilizing, bitumen.

Benefits:

- Reduce GHG emissions intensity by producing products derived from oil sands not combusted as fuel
- Create new and/or expanded markets for oil sands components and their derived products
- Potential to extend the long-term value of reserves

Horizon Primary Upgrading facility

Process Improvements to Reduce Environmental Footprint

In-Pit Extraction Process for tailings (IPEP) - Reducing our environmental footprint in the oil sands

Canadian Natural's IPEP project is a relocatable, modular extraction plant that processes ore and separates bitumen right in the mine pit. It reduces pipeline length, materials transportation by truck and the energy needed to pump material, while also producing stackable dry tailings.

Next steps:
Engineering activities are ongoing to determine the feasibility of a commercial demonstration plant.

Benefits:

- Reduce GHG emissions by up to 40% in bitumen production
- Reduce footprint of mining operations
- Accelerate reclamation and potentially eliminate the need for future fluid tailings ponds
- Potential to reduce production costs by $1 to $2/barrel as well as tailings management costs

IPEP pilot facility.

Video Spotlight

Watch our video to learn more about this transformational technology.

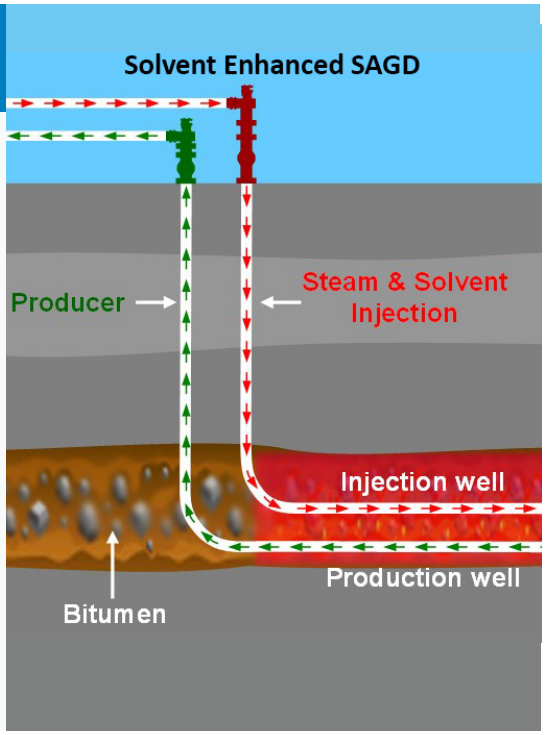
Solvent Enhanced Oil Recovery (EOR) – Reducing GHG emissions through steam efficiencies

Our pilot at Kirby South is testing solvent effectiveness to improve oil recovery in a SAGD process. When a portion of the steam is replaced by solvent, the process operates at a lower temperature and maintains production rate, thus reducing GHG emissions.

Next steps:
The Kirby South pilot will continue for the remainder of 2021, and a solvent enhanced steamflood pilot is targeted for Q4/2021 at Primrose to verify recovery rates. The solvent EOR processes have potential to create value across all of our thermal operations and play a major role in the mid-term on our journey to net zero emissions.

Benefits:

- Reduce steam-to-oil ratio (SOR) by up to 50%
- ~$1.00/bbl operating cost savings
- Lower GHG emissions intensity by up to 50%
- Potential application throughout extensive thermal in situ asset base



Advancing Innovation

Ultra-low emissions pad sites – Reducing emissions in heavy oil

Canadian Natural is piloting ultra-low emissions pad sites from reservoir to storage tank. Pilots will test what a typical heavy oil pad site would look like when most emissions are captured or reduced.

Next steps:
One pilot will evaluate conserving solution gas through an on-site compression and vapour recovery unit, while another will redirect waste heat for use in the production tank.

Benefits:

- Potential to reduce burner time by 40%, which when applied to hundreds of heavy oil sites can significantly reduce fuel emissions
- Cost-effective processes that reduce emissions and operating costs associated with heating

Heavy oil tanks near Bonnyville, Alberta.

Liquids Enhancement and Gas Storage (LEGS)

In 2020, our LEGS pilot used cyclic natural gas re-injection to re-vaporize and re-mobilize liquids in a tight Montney reservoir, allowing them to flow readily to the well.

Next steps:
The pilot was successful in demonstrating the potential to add capital efficient reserves on existing and future developments. Two additional pilots are targeted for the Greater Wembley area.

Benefits:

- Potential to add capital efficient reserves on existing and future developments
- Improve liquid sales rates by removing gas market/transportation limitations
- Add high-value reserves without drilling new wells, reducing water usage

Natural gas re-injection piping at LEGS pilot.

Optimizing Multi-laterals

Canadian Natural has had success in many areas with a multi-lateral horizontal technique to unlock reserves. Building on this success, we adapted the technique to suit the unique geological and production characteristics of the area where the Cold Heavy Oil Production with Sand (CHOPS) method was used.

Next steps:
This enhanced technique is increasing reservoir contact and improving productivity and recovery. Horizontal designs (multi-lateral horizontals and fishbone wells) are now a part of our suite of drilling methods along with CHOPS wells.

Benefits:

- Improve the economics of new field developments and drilling
- Unlock previously uneconomic pay zones
- Reduce surface footprint of operations

Multi-lateral horizontal and fishbone wells.

Water Treatment

H2nanO - Treating process water during reclamation

Water used in the oil sands production process contains compounds that require treatment prior to release. H2nanO utilizes a sunlight-activated, reusable treatment process for process-affected water. This treatment, called Solar Pass, uses tiny particles that when mixed with water and activated by sunlight, continuously treat and eliminate organics.

Next steps:
Work is ongoing to validate the results of a demonstration pilot to assess the viability of treating oil sands process-affected water.

Benefits:

- Sunlight-activated process with low energy requirements and reduced GHG emissions

H2nanO facility machinery.

The Water Technology Development Centre (WTDC) - Increasing water recycling efficiency and lowering emissions

In situ operators have established a 5,000 m^2, $143 million dedicated world-class facility. The WTDC is attached to 'live' SAGD process streams to conduct collaborative research to improve the reliability and efficiency of recycling technology and reduce environmental footprint.

Next steps:
The WTDC helps to speed-up technology development and implementation, shortening the current eight-year timeframe required to field test technologies and move them to commercial application, leading to an accelerated return on investment.

Benefits:

- Increase the number of technologies tested, while collaboratively managing the risks, leveraging multi-company expertise, and lowering the costs of technology development
- Accelerate development and commercialization of new water treatment technologies


Outside the WTDC facility.

Video Spotlight

Watch COSIA's video to learn more about the WTDC.

To learn more about these and other projects we are investigating, read our 2020 Technology and Innovation Case Studies on our website.

Health and Safety

At Canadian Natural, safety is a core value that underlies all our activities to reach our ultimate goal of '**No harm to people; No safety incidents**'.

Providing a safe work environment for employees and contractors across our operations is a crucial part of being an effective and efficient operator. Our teams work together to keep our Safety Excellence goal of **No harm to people; No safety incidents** top of mind. To do this, we focus on strong leadership and workforce participation at all levels.

At Canadian Natural, **safety is a core value and is frontline-driven**. Management and supervisors spend significant time engaging with field workers and reinforcing everyone's role in contributing to a safe workplace. The direct involvement of our frontline staff is as important as management commitment. Employees, contractors and service providers deliver valuable insights about how they can perform their jobs safely and efficiently. Our safety teams work with leadership, employees and contractors to identify hazards and develop safe work procedures to achieve an incident-free workplace.

Safety is a core value

We have robust, disciplined processes in place to protect employees, contractors and the public, as well as the environment, equipment and facilities. Our comprehensive management systems apply to all our operations in Canada and offshore facilities, and we integrate personal health and safety, process safety and asset integrity.

Routine inspections and audits, as well as compliance and safety meetings, are part of our Safety Management System (SMS). Risk assessment tools in our SMS allow us to identify potential hazards and effectively implement controls to prevent and reduce exposure to risks in the workplace. Industrial hygiene also plays an integral role in our SMS, helping us to anticipate, recognize and ensure consistent management of occupational health risks for all workers, for example, by improving ventilation, and providing respiratory protection and personal protective equipment. Incident, hazard and near miss investigation, management and reporting include follow-up actions as part of our continuous improvement approach.

Safety is frontline-driven

Workforce engagement is a key contributor to continuous improvement in our safety performance. Engagement strengthens our SMS with workers identifying potential risks and mitigation measures across our operations. We foster a frontline-driven safety culture through robust safety programs.

Safety leadership in the field

Senior management engages regularly with operational staff to foster our safety culture, discuss challenges and celebrate successes. Some of our safety meetings with employees and contractors were deferred in 2020, resuming in 2021 in a virtual format. Senior operations and safety management field visits continued with a focus on increasing supervisor presence to support teams, prevent complacency and distractions, and recognize and manage changes, including adapting to COVID-19 protocols. We also established a cross-divisional working group for incident prevention, focusing on continuous improvement in contractor and supervisor oversight.

Personnel at a drilling site near Rocky Mountain House, Alberta.

UN Sustainable Development Goals (SDGs) in this section

Focus on hazard assessments

To perform tasks properly and safely, all work conducted on Canadian Natural's worksites require a hazard assessment before the work starts. Our Worksite Safety Observation (WSO) is a behavioural-based program that consists of observations and conversations between supervisors, workers and contractors. This collaborative approach towards verifying procedures has strengthened our safety culture over the years.

As the Four Pillars of Safety are the foundation of the SMS, when conducting WSOs we ensure the pillars are in place. The WSOs validate the applicable Industry Life Saving Rules — industry standards outlined by Energy Safety Canada, which are being managed every day. WSOs provide opportunities for coaching and discussions to review expectations and control implementation for all known hazards.

Safety communications and training

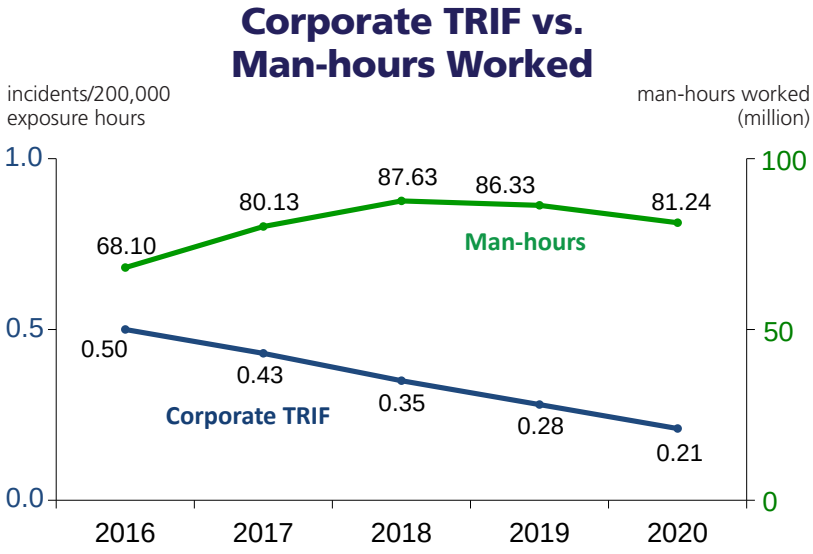
Regular safety awareness and communications of incident trends and safety topics are essential to promote dialogue and help incorporate prevention measures into daily routines. Our safety coordinators and supervisors participate in meetings and play a key role in the success of WSOs, ensuring effective communications with employees. Safety and competency (job-related skills) training for leadership, employees and contractors is another key element of our SMS.

> "When I perform a WSO with a worker and tell them it is not just a paper exercise, they immediately know it has meaning. They know I care about their safety and the safety of everybody else with them on site. I always encourage them to point out concerns to me and get them thinking about their safety."
>
> **Terry Leuken,**
> *Field Operator*

Safety performance

Our SMS programs have significantly reduced the total recordable injury frequency (TRIF) across our operations by engaging employees and contractors through processes such as WSOs, root cause analysis and safety meetings. Our year-over-year safety performance, as measured by industry standards, demonstrates our continuous improvement.

We are deeply saddened by the tragic loss of two contractors in our NA E&P operations during 2020. These separate incidents heighten our resolve to continually improve safety performance. We are working with contractors across our operations to ensure that robust systems are in place to enhance safety performance and prevent incidents. Findings from our investigations include opportunities to improve contractor management and site supervision. We reiterate our commitment to our Safety Excellence goal of **no harm to people; no safety incidents**.



Health and Safety

Continuous improvement in safety management

Alignment with our SMS is important to making our worksites safer. We continue to reinforce the importance of our management system to reduce incidents and improve our safety performance. The use of real-time analytical data for trend analysis is helping us proactively develop actions to improve safety at our worksites.

We continue to follow the "plan, prepare, execute" approach. Turnarounds are an opportunity to work closely with our employees and contractors. Our planned 2020 maintenance outages were completed successfully and resulted in ongoing safe, efficient and effective operations. Our teams focused on trend analysis, review of job scopes, contractor competency, and increased supervisor participation in safety related pre-planning and incident identification.

Emergency response management

Canadian Natural's integrated management systems are based on proactive risk management to reduce the risk of incidents, such as injuries, spills or leaks, from occurring. Our approach to emergency response is comprehensive across our operations and ensures we are properly prepared to protect personnel, the public, the environment and our assets in the event of an incident. The components of our emergency response management include an Incident Command System, detailed procedures, trained personnel and emergency response plans (ERPs) for immediate initial response and access to equipment for a safe and well-coordinated response. Our programs and ERPs meet or exceed the regulatory requirements in each jurisdiction where we operate.

As part of ensuring continuous improvement in our emergency preparedness and response, and to maintain a state of readiness for emergencies at all operating sites, we conduct planned training exercises with all our teams each year. Exercises test fitness of emergency preparedness and response arrangements, and highlight areas of good practice and opportunities for improvements to our emergency response procedures. Exercises also include tabletop and major ERP exercises with regulators and contractors.

Throughout 2020, our International operations carried out the training and testing of procedures and guidelines through a series of demanding exercises to confirm our state of readiness ahead of the October government elections in CDI.

We also assessed our security control arrangements and identified opportunities to strengthen procedures to continue to ensure the safety of our personnel and facilities. For more details on our emergency response preparedness and training exercises read the Spill Preparedness and Emergency Response section on our website.

2021 Areas of Focus

- Focus on SMS awareness through audits and action plans for continuous improvement in safety performance.
- Strengthen frontline-driven safety culture and incident prevention, working with supervisors and contractors (including third-party FPSO operators).
- Continue to increase senior leadership engagement in the field across all operations.
- Continue to strengthen our Emergency Response Plan training to ensure state of readiness and response capability.
- Ensure access to wellness resources and information to support employee wellbeing.

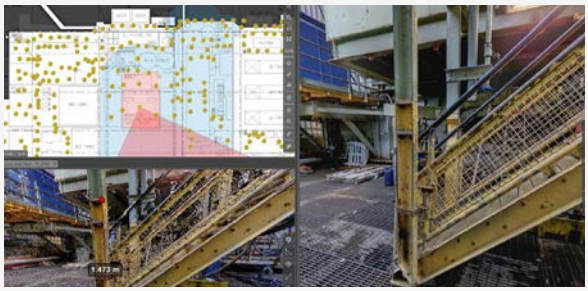
Safety compliance coordinator conducting a hazard review at our Estevan operations with the VP operations, superintendents, foremen, safety lead, and area operators.

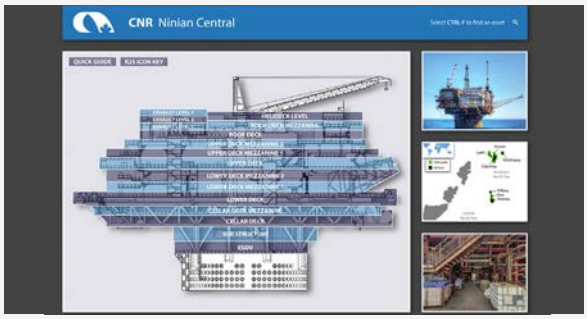
3-D visual software for marine safety

Canadian Natural has been using three-dimensional (3-D) models, virtual and augmented reality to make workplaces safer, improve training and support data analytics. In 2020, we extended 3-D modelling to our UK platforms (Ninian Central, Ninian South and Tiffany). The three locations are now fully scanned and 3-D models are available to all employees and contractors for easy access to centralized data for project planning, facility design changes and risk assessments.

The first major modelling project was on the Ninian Central Platform, which required specialized equipment in a congested area. Our main engineering and fabric maintenance contractors have been using the software extensively in planning and scoping projects and tasks. The use of modelling has reduced the need for personnel travelling offshore to conduct surveys, minimizing risks and improving safety, while allowing teams to work together and connect across a number of remote locations.

For more information on how we are applying technologies to improve safety, asset integrity and environmental performance, read the Technology and Innovations Case Studies on our website.





Health and wellness

Our mental and physical health affects all aspects of our lives, including our ability to be safe and productive at work. This is why Canadian Natural is working hard to ensure employees feel supported and have opportunities to improve their health and wellness.

Our Strive wellness program provides resources, tools and support for employees across our operations. Programs are designed to build awareness and understanding of living a healthy lifestyle, both physically and mentally. Participation in Strive generates financial rewards for use towards healthcare or wellness expenses not fully covered by the company's benefits plan.

In 2020, wellness programs were enhanced and targeted to better match employees' needs. The focus shifted to increased frequency of mental health communications and resources, and reducing mental health stigma. In 2021, we are also piloting the Canadian Mental Health Association's program, **Not Myself Today**, in our Calgary headquarters and at some of our field locations. This program is based on a shared insight — the feeling of not being oneself — that connects people to the topic of mental health and helps build empathy. By fostering a safe and supportive environment across the Company, we can help promote psychological safety so that employees feel accepted and respected.

For more information about health and wellness at Canadian Natural, read the Healthy People in Healthy Workplaces section on our website.

Canadian Natural employees participating in wellness activities.

Health and Safety

Priorities in 2020

Safety Management System (SMS)

- Continue to focus on SMS awareness through SMS audits and action plans for continuous improvement in all business units.
- Coordinate annual Certificate of Recognition (COR) external audit for all Canadian operations, including action plans for continuous improvement in each business unit.

Safety Excellence

- Continue to strengthen frontline-driven safety culture and incident prevention.
- Identify alternative ways for senior leaders to continue to engage with field personnel across our operations.
- Continue participation and support of Energy Safety Canada (ESC) industry initiatives.

Contractor Safety Management

- Continue work with contractors to further improve frontline safety.

Safety Leadership

- Continue to increase senior leadership engagement in the field across all operations.

Emergency Response

- Continue to strengthen our Emergency Response Plan (ERP) training to further improve our state of readiness and emergency response capability.

Wellness

- Enhance health screening process and support to continue to increase participation and engagement in **Strive**.

Accomplishments in 2020

Focus on safety pillars and frontline-driven programs through "plan, prepare, execute" approach

100% Completed
planned facility inspections

Maintained COR for Canadian SMS, meeting requirements of the provincial Occupational Health and Safety standards

0.21 Corporate TRIF
lowest to date, 58% decrease since 2016

↓50% Reduction
in lost time incident (LTI) frequency vs. 2016

169,400+ Hours
of safety and competency training

↓30% Reduction
in injuries company-wide vs. 2019

Increased site leadership and supervisor engagement directly in WSOs in the field, and senior leadership participation in virtual meetings

Participated in and contributed technical advice on industry initiatives

56,632 Completed
hours of ERP exercise training, 10%+ increase from 2019 to accommodate smaller groups

740 Completed
Emergency Response Plan exercises; as per annual plan

Focused on local and targeted programs, including mental health awareness and resources

At Canadian Natural, we are committed to high standards of asset integrity to ensure safe, reliable, effective and efficient operations.

Canadian Natural has a proactive, risk-based approach to manage asset integrity and ensure the safety, compliance and reliability of our infrastructure — including pipelines, pressure equipment and tanks — for all our operations.

We operate one of the largest and most diverse inventories of process equipment, including thousands of kilometres of upstream pipelines and associated processing facilities across Western Canada, major oil sands operations in northern Alberta, and offshore facilities in the UK and CDI (see our operations map on page 2).

Our Asset Integrity Management System provides the framework to help us identify, assess and manage risk to prevent incidents that could impact process safety, the environment and the integrity of our assets. We use this system to coordinate compliance with regulations and drive continuous improvement through goal setting, tracking and results measurement. Asset Integrity, Operations, Engineering, and Safety teams receive training and support so that risks are proactively assessed, understood, communicated and mitigated.

Process Safety Management (PSM)

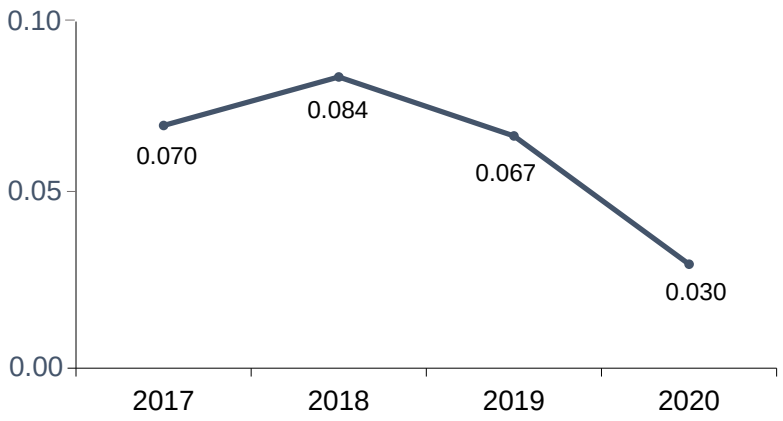
A sound Process Safety Management program provides the framework to prevent and control serious incidents, such as spills or leaks that involve hazardous materials. The integrity of our process equipment is essential to maintain Company-wide safety, and by following our PSM system we apply strong design principles, engineering and operating practices.

PSM performance

We track and regularly review process safety events with senior operations leadership. A PSM Review Panel of senior technical specialists provides corporate-level process safety oversight to strategically implement improvements and strengthen our process safety culture.

We monitor our PSM performance using recognized industry metrics to drive continuous improvement. Our Tier 1 process safety events show an improvement of 59% in 2020 from 2019. Our focus is on continuing this trend of incident reduction through proactive management practices and ongoing education across our business units.

Process Safety Events Rate
(Tier 1 incidents per 200,000 hours)



Number of Tier 1 PSM events	2017	2018	2019	2020
North America Exploration and Production	23	32	26	11
Oil Sands Mining and Upgrading	4	4	3	1
International Exploration and Production	1	1	0	0
Corporate Total	**28**	**37**	**29**	**12**

Corporate Tier 1 process safety incidents are defined by the American Petroleum Institute Recommended Practice 754 and the International Association of Oil and Gas Producers Report 456 as major releases or losses of primary containment of greater consequence.

UN Sustainable Development Goals (SDGs) in this section

Risk-based approach helps keep operations safe and reliable

Our teams assess potential risks and impacts on the integrity of our assets to protect people's safety and the environment. Canadian Natural's Corporate Risk Matrix is a tool used in every area of the Company, providing alignment to understand, manage and mitigate common risks consistently across our business.

This multi-disciplinary approach encompasses safety, process safety, asset integrity and environmental aspects. Our teams work together to measure the likelihood and consequences of a potential failure, and develop effective solutions. The matrix helps us prioritize work and enhance our programs by minimizing the exposure to risks. Mitigation plans range from inspections, repairs and material upgrades to continuous improvement opportunities.

Pipe spool inspection at the Horizon site, as part of a comprehensive process to assess risks across our operations.

> "The Asset Integrity team works closely with our Operations, Engineering, Safety and Environment teams to identify and understand possible threats that require mitigation."
>
> **Brian McKenzie,**
> *Non-Destructive Testing Lead,*
> *Oil Sands Mining, Asset Integrity*

Management of Change (MOC)

A key element for managing changes and hazards from a PSM perspective is MOC — a process that mitigates risk by effectively managing changes at our facilities and operations that could create potential safety, health, integrity or environmental risks.

In 2020, we implemented an improved risk analysis method and MOC database software for improved project management of facility modifications across our Canadian operations. We continue to promote feedback from our teams and implement continuous improvement programs to ensure process safety, corporate and regulatory compliance are understood and addressed.

Operational Risk Assessments (ORAs)

ORAs are implemented across our operations to assess potential process safety concerns and implement short-term mitigation controls (or temporary shut-ins) until a permanent solution is in place. ORAs were used in 2020 to safely defer some maintenance work due to the risks of COVID-19.

Root Cause Analysis (RCA)

Root cause analysis is a continuous improvement process that ensures understanding of the main contributing factors that caused an event. In 2020, we had a small fire at Horizon that was contained on site and safely extinguished with no safety incidents. Lessons learned from the investigation resulted in improvements to our Fire Water Protection System (FWPS).

To test and confirm our emergency response preparedness, we conducted an RCA evaluation of our FWPS. Our teams worked together with Occupational Health and Safety and our local fire department, sharing expertise and technical knowledge, testing reaction times and coordination, confirming that our systems are fit to mitigate a large impact event.

Continuous improvement in asset integrity management

In 2020, we continued our focus on lessons learned from RCA to understand and improve our asset integrity processes. Our initiatives included:

- **Enhancing risk management processes**
  Through collaboration between the Asset Integrity and Operations teams, we implemented an enhanced Field Risk Management process and started to align risk assessments within each business area to the enhanced process.

  An external review of the effectiveness of our work processes was completed in 2019 at the Horizon upgrader with a team of industry experts. We advanced initiatives throughout 2020, resulting in improvements to work flow and risk management processes.

- **Focusing on hydrocarbon release reduction at International operations**
  Hydrocarbon releases are trending in the right direction. An 80% reduction in releases since 2017 (from 16 in 2017 to three in 2020) is largely attributed to lessons learned through RCAs of incidents and improving asset integrity programs at our offshore operations and with third-party FPSO operators.

- **Strengthening the mooring chain integrity program**
  Our FPSO vessels in Offshore Africa are held on location by mooring systems. In 2020, we detected corrosion on the Baobab mooring chains. Corrosion is commonly seen on mooring chains, and controls are in place to determine the cause and avoid failures. A campaign was immediately initiated to replace the chains and collect samples for laboratory analysis. The results of the analysis will be incorporated into our plans to continue to provide safe, reliable operations.

Employee conducting regular maintenance at a Horizon secondary upgrading facility, which is essential to the ensuring asset integrity.

Pipeline integrity

Canadian Natural's comprehensive pipeline integrity management system uses a risk-based approach to prevent pipeline failures. We assess each pipeline based on the likelihood of failure and the potential consequences of that failure, to ensure pipeline risks are understood and resources are focused appropriately.

Canadian Natural's management system includes well-established risk-assessment tools, monitoring and mitigation programs, and spill and emergency response plans. We operate more than five times more pipeline length than our nearest peer in Canada. Our leadership in pipeline integrity management is key to enhancing overall industry performance.

In 2020, our overall leak frequency was 1.23/1,000 km, slightly higher than the 1.20 frequency reported in 2019, due to a modest increase in low-risk leaks with no safety or environmental impact. Performance of our higher risk pipelines continues to improve with a decrease in leak frequency of 29% since 2018. Our geohazard systems (pipelines that cross water bodies or slope movement) had no failures in 2020.

Improvement plans for high-risk pipelines continued in 2020 to enhance monitoring and mitigation programs, including additional proactive inspections and assessments to prevent failures.

GeoHazard management program

Pipeline incidents can result from natural risks. Canadian Natural employs a comprehensive GeoHazard Management System to monitor locations where streams, rivers or slope movement could impact pipeline integrity. For new pipelines, we follow a route assessment process prior to construction to avoid sensitive areas.

All locations where our pipelines cross water bodies or active areas have been proactively evaluated by geotechnical engineering experts. Pipelines identified with the highest associated risk are incorporated into our program and all potential hazards are housed in a database. A risk-based prioritization method is used to plan the following year's inspections and maintenance programs to mitigate and prevent incidents. In 2020, we completed more than 1,300 planned inspections.

Our GeoHazard system facilitates proactive identification of risks, so that we can immediately implement mitigation measures and prevent environmental impacts. In 2020, for example, we identified an area of potential slope movement on a pipeline right-of-way in our East Gold Creek field in the Grande Prairie area. We proactively took the pipeline out of service and re-routed a new section of pipeline away from the slope.

Technologies for enhanced leak detection

Canadian Natural's multi-disciplinary pipeline leak detection team is critical to our pipeline network performance. This group drives a consistent approach to align solutions with industry best practices, identifying new ways to predict and reduce the potential of incidents and prevent environmental impacts.

All our high-risk leak detection systems on liquids pipelines have been assessed and assigned an inspection frequency. In 2020, we conducted 345 proactive tests on these pipelines, where liquids were safely drawn off to simulate leaks. These tests represent 91% of our planned tests — remaining tests were risk assessed and safely deferred to 2021 with no impact to the integrity of our assets. Testing allows us to evaluate how systems respond in the event of an actual leak, and identify further improvements, such as accuracy and detection capabilities.

We use a number of technologies to help us maintain safe, reliable operation of our pipeline network. For example, we monitor high stream flow events in real time using fiber optic sensors, so we can prevent potential integrity incidents before they occur. These technologies are sensitive, allowing for early detection of smaller leaks. To continue to reduce risks on our pipeline systems, we have also incorporated a software model that can detect the exact location and size of potential failures by monitoring changes in the fluid dynamics.

More information is available in the Pipeline Integrity section of our corporate website.

Pressure equipment technology

It is important that our pressure equipment is maintained and operated in a safe manner to prevent incidents and safeguard people and the environment. Canadian Natural's Pressure Equipment Integrity Management Systems (PEIMS) define how we manage each piece of regulated pressure equipment during its entire lifecycle. PEIMS include engineering controls, inspections, monitoring, repairs and alteration requirements, to ensure safe, reliable and compliant operations.

Our PEIMS are registered and fully compliant with the jurisdictions in which we operate. An internal audit conducted in 2020 revealed opportunities to enhance training and competency verification programs, which were developed and planned for implementation in 2021.

Structural Integrity

Structural Integrity programs are in place to proactively prevent significant incidents at the operational structures that support our production facilities. We do this through careful design, safe operation and proper maintenance within the facilities' lifecycles.

North Sea and Offshore Africa facilities are subject to a range of operating conditions that can present challenges to managing infrastructure. Structural integrity inspections and repairs involve the use of technology that has proven increasingly efficient, improving inspection safety and timelines.

Microhabitat technology enhances safety for subsea personnel

Our International operations use a leading approach to subsea structural integrity. Platforms are supported by a steel "jacket" structure that is regularly inspected. When repairs are needed, divers historically welded from inside a modular hyperbaric habitat. Deployment of this modular habitat can be costly and disruptive to other platform activities.

In 2019, we started developing the Microhabitat, a smaller chamber that encloses the repair area. The diver can perform welding by inserting their hands through "incubator" type gloves and into the chamber, which is attached to the platform infrastructure. This method improves working time and jacket accessibility, and is also safer for divers because it allows them to work outside the habitat. Collaborative work with vendors led to development of this solution from concept to use within 12 months. It was then used successfully in 2020 to complete repairs on the Ninian South Platform jacket.

The microhabitat chamber is shown in yellow.

2021 Areas of Focus

- Maintain focus on management of high-risk pipelines.
- Continue to work with FPSO operators to improve tracking and identification of operational risks.
- Complete all planned PEIMS training programs using enhanced training framework.
- Incorporate lessons learned from safety protocols and safely execute planned outages.

Priorities in 2020

Process Safety Management (PSM)

- Continue to implement processes for risk-based inspections (RBI) information accuracy and evaluation of operational changes.
- Improve MOC processes across our operations.
- Continue to work with FPSO operators to define and implement plans to reduce risks, based on information gathered during RBI programs and audits.

Pipeline Integrity

- Continue management program of high-risk pipelines, including proactive tests and leak detection systems for continuous improvement.
- Fully integrate the "Collaboration Initiative" to increase engagement and effectiveness in our pipeline mitigation and monitoring programs.

Facility Integrity

- Implement PEIMS improvement opportunities identified through inspections, RCA and audit finding across our operations.
- Integrate PEIMS processes across our oil sands mining operations.
- Safely execute oil sands mining and upgrading pit stops/turnarounds.
- Continue reviews of critical pressure equipment, and the Corrosion Under Insulation (CUI) program for offshore platforms.

Accomplishments in 2020

100% Completed
planned RBI assessments in oil sands mining and upgrading operations

MOC process improvements focused on enhancing hazard assessments

↓ 80% Decrease
in hydrocarbon releases at International operations since 2017

Alignment with FPSOs to improve tracking and identification of operational risks

100% Completed
planned geohazard inspections, zero incidents

91% Completed
leak detection systems tests on high-risk pipelines

↓ 29% Decrease
in leak frequency of high-risk pipelines since 2018, lowest level to date

Delivered enhanced PEIMS training framework

Aligned PEIMS processes for Horizon and Albian sites

100% Completed

planned pit stops/turnarounds, inspections and repairs

planned CUI inspections on offshore platforms

required reviews and inspections of critical equipment

Working Together with Communities

Canadian Natural works with local communities and stakeholders to build long-term relationships based on mutual respect and shared value.

Canadian Natural is committed to a long-term presence in the communities where we operate. We engage regularly with those who live by our operations to create shared value and mutual benefit. Together, we are working to ensure a responsible, sustainable, and resilient crude oil and natural gas industry.

We work together with a broad group of stakeholders in proximity to our operations in Canada, the UK and Africa — including more than 24,000 landowners, 160 municipalities and 80 Indigenous communities across Western Canada, as well as industry, governments, regulators, and non-governmental groups. To support the communities and their priorities, we focus on identifying opportunities for education and training, employment, business development and community investment.

Engaging stakeholders

Canadian Natural's teams focus on building and maintaining relationships with stakeholders to consult on operations and development plans, and achieve long-term shared value. We value the relationships built through open and meaningful discussions.

We have numerous employees connecting regularly and communicating directly with communities in various capacities. The large majority are field-based community relations staff who provide updates, address concerns and integrate community needs into our projects. Local stakeholder engagement is managed through annual plans to respond to community priorities and follow through on commitments.

In 2020, we continued to connect and work (mostly via online meetings and phone calls) with many stakeholders on local area opportunities and challenges:

- Engaged with communities on more than 65 projects and development plans.
- Worked with local governments, rural counties and municipalities, chambers of commerce, landowners, regulators, industry and non-governmental groups to identify and address community concerns, including activity levels, business opportunities, environmental stewardship, public safety, services to improve quality of life, property taxes, infrastructure and road use.
- Participated in collective dialogues at local stakeholder and synergy groups.

Working with Indigenous communities

Some of our operations are located on or near Indigenous communities. We remain committed to respecting traditional values and cultures of the many different communities where we do business, and integrating economic development with the rights of Indigenous peoples and communities. Canadian Natural's responsibilities and commitments when working with Indigenous communities are outlined in our Indigenous Relations Policy.

We connect regularly with elected representatives, Elders, community members and advisory committees to discuss issues that matter. For example, Canadian Natural organizes Annual Stakeholder Tailings Forums in Alberta with representatives from seven local Indigenous communities to share operational updates and discuss environmental programs.

In 2020, much of our community involvement focused on helping Elders, families and youth during the pandemic. We also supported more than 150 traditional events and cultural programs, and initiatives to connect Elders with youth and promote Indigenous traditions and history. For example, we supported the Full Circle Mentoring program partnership in the Regional Municipality of Wood Buffalo (RMWB), an Indigenous-based after school program helping youth learn more about their cultural heritage. We also assisted the new Community High School in Fort Chipewyan (a new school opened recently by Mikisew Cree, Athabasca Chipewyan First Nation and The Fort Chipewyan Métis Local 125) in purchasing sewing machines for students to earn credits, develop skills, and promote local pride and cultural Identity.

In some of the communities where we have extensive operations, we have identified opportunities to establish long-term agreements to formalize our working relationships with Indigenous communities. These agreements promote relationship building and mutual benefit through economic and community development.

Read about our consultation objectives in the Indigenous Relations section of our website.

Employees from the Slave Lake Native Friendship Centre receiving a donation from Canadian Natural.

UN Sustainable Development Goals (SDGs) in this section

Promoting local business development

Canadian Natural promotes local and regional business development opportunities through the procurement of goods and services for our operations. Hiring local workers and suppliers is mutually beneficial, leading to long-lasting partnerships and economic development.

We continue to work closely with many Indigenous communities near our operations in Western Canada to enhance the opportunities for economic participation in oil and natural gas developments. In 2020, we worked with 159 Indigenous companies and awarded more than $490 million in contracts to Indigenous businesses and contractors, maintaining significant investment levels despite lower activity levels. These businesses are also a vital source of community-based skills training, investment and prosperity. We also worked with:

- Advisory Committee Groups, which provide a forum to discuss social, cultural and educational issues, as well as employment and business development. These groups include Northeastern Alberta Aboriginal Business Association (NAABA), Region One Aboriginal Business Association (ROABA), Conklin Resource Development Advisory Committee (CRDAC), Grande Prairie Aboriginal Circle of Services (GPACOS), and the Peace River Aboriginal Interagency Committee (PRAIC);
- Atoske Action Group, regarding employment and training opportunities in Wabasca-Desmarais and Sandy Lake areas, working with industry, Bigstone Cree Nation, Métis Nation of Alberta, Careers: The Next Generation, Northland School Division, Northern Lakes College, and the Government of Alberta.

Reclamation work with Indigenous companies

When working with Indigenous communities, one of our main objectives is to support sustainable communities by helping build local capacity. We have been working on abandonment and reclamation work with Indigenous-owned companies for many years.

Most recently, Canadian Natural has been working with many First Nations and Métis communities in Alberta, Saskatchewan and British Columbia to abandon inactive wells, pipelines and facilities and to reclaim sites and access roads in these communities.

Over the next two years (2021-2022), Canadian Natural is targeting to invest more than $50 million working with Indigenous companies on site closure projects supported by a federal government funding program. The funding program provides a valuable opportunity to work together to accelerate reclamation activities while sharing expertise and best practices that contractors can build on beyond this program.

Wellsite Abandonment and Reclamation Training program led by the Indian Resource Council.

Canadian Natural is also sponsoring the *Wellsite Abandonment & Reclamation Training Project,* developed by the Indian Resource Council of Canada (IRC) to build capacity and ensure Indigenous workers are able to participate in the Alberta Site Rehabilitation program. Safety training is another important component of this program which aligns with safety as a core value. This initiative includes 36 First Nations and all Métis Settlements, and our involvement includes participation on steering committees and training sessions.

> “The Wellsite Abandonment and Reclamation Training Program represents our teams’ vision to train Indigenous communities to fully participate in the Alberta Site Rehabilitation Program. Hats off to our team for achieving an 85% employment rate, the creation of new Indigenous companies and providing opportunities to learn skills that can be used for future employment. We appreciate Canadian Natural’s support and funding for the program.”
>
> **Steve Saddleback,**
> *Director of the National Energy Business Centre of Excellence (NEBCE) at the Indian Resource Council of Canada (IRC)*

Working Together with Communities

Supporting education and training

Canadian Natural supports education and training to help develop the next generation, including programs that prepare people for local employment.

In 2020, we contributed to schools across our operations to help facilitate online learning for students and literacy opportunities facing challenges during the pandemic. We provided funding towards libraries, laptops and tablets, USB sticks to help families without internet services, and breakfast programs, impacting more than 8,000 students.

We continue to offer scholarship opportunities in Canada, the UK and CDI, including the Canadian Natural Building Futures Scholarship program for post-secondary studies, as well as undergraduate scholarship programs. We also support several programs, including the Northeast British Columbia (NEBC) program for Treaty 8 First Nations stay-in-school program since 2003, and the APPLE School Foundation providing an innovative school-focused wellness, health and activity program for remote communities.

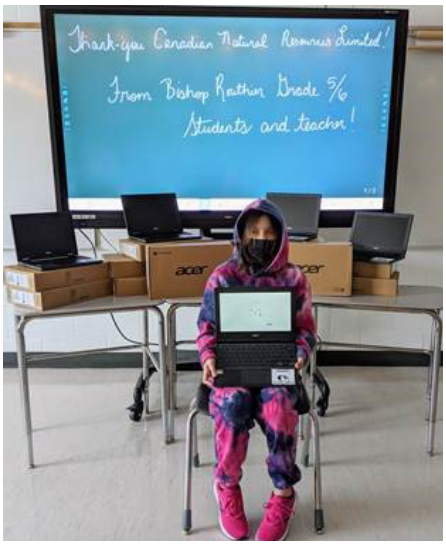
Scholarship recipient

John MacPhee, born and raised in Grande Cache and a member of the Aseniwuche Winewak Nation, is one of our 2020 Canadian Natural Building Futures Scholarship recipients. After high school, he reflected on his experience growing up, seeing the challenges faced by Indigenous communities in rural areas. The idea of understanding people's unique history and assisting their transition towards a different part of their lives struck a chord with John. His next step is to complete a Bachelor of Social Work at the University of Calgary, and Canadian Natural is proud to support him.

We take pride in helping develop people and work closely with local colleges and skilled trades programs. We have been long-term supporters of:

- The University of Calgary, funding the Canadian Natural Resources Limited Engineering Complex and research;
- Keyano College, sponsoring the fieldhouse and gymnasium, and Bachelor of Education students to receive rural practicum placements in Fort Chipewyan and Anzac (supported nine students in 2020);
- Portage College, supporting education throughout the Lakeland region at six campuses, working with nine Indigenous communities; and
- Careers: The Next Generation, with 64 internships for high school students, including women and Indigenous students, across our Alberta operations since 2014.

We also support employment opportunities through internal training and mentorship. For example, our in-house apprenticeship program for heavy equipment technicians and electricians at Horizon and Albian prepares people to work with our maintenance team. We've had 28 graduates to date and 35 individuals are currently enrolled.



> "I'm doing my school work at home because of COVID-19, and having a (laptop) will make getting my assignments and lessons a lot easier."
>
> **Gianna, a student from Bishop Routhier School,** Peavine Métis Settlement

Investing in communities

As members of the communities where we operate, our teams work together with local stakeholders to understand and prioritize projects that promote quality of life and long-term local economic growth and development — we call this shared value. In this way, we can help local grassroots efforts that get right to the heart of the issues the communities care about.

Our community investment program includes corporate sponsorships and cash donations, support to employee giving and volunteering (e.g. corporate matching), and funding for community-based economic development projects, including Indigenous programs.

Funding priority areas include health and wellness (from hospitals to local sports and recreation), education and training, social and cultural events. A big focus in 2020 was COVID-19 relief donations, including increased support to food banks and Indigenous communities, Christmas community meals and hampers, school breakfast programs, mental health programs, and other institutions facing increased demand. We also maintained support for other programs, including:

- STARS (30+ years partnership) and HALO medical rescue helicopters, as well as a number of first responders requiring equipment, such as two rescue boats and a thermal drone used in medical emergencies;
- Edmonton's Royal Alexandra Hospital electronic fetal monitoring system for expectant mothers in remote areas;
- University Hospital Center of Cocody Burn Unit and the Abidjan Heart Disease Institute in CDI;
- Cold Lake Hospital Foundation, Medicine Hat and District Health Foundation, Lloydminster Health Foundation , Grande Prairie New Regional Hospital and Cancer Centre, Northern Lights Health Foundation, Ronald McDonald House Charities; and
- programs to end homelessness, including the Calgary-based RESOLVE campaign and Centre of Hope in Fort McMurray.

CDI medical staff and public face coverings donation.

masks donated
by Canadian Natural

250,000
to CDI medical staff and public

100,000
to Calgary Transit for COVID-19 response

Video Spotlight

Canadian Natural donated a wheelchair accessible bus to the new Willow Square Continuing Care Centre. The van will be used to transport seniors to medical appointments, rehabilitation and social activities. Watch this video to learn more about our support of the Northern Lights Health Foundation in the Wood Buffalo region over the years.


Click to view video, or visit our website.

Working Together with Communities

EMPLOYEES MAKING A DIFFERENCE IN 2020

$1.67 million
Donated to United Way through employee giving and corporate matching

$30+ million
Donated to United Way over 30+ years

100% management participation
Successful virtual United Way campaign

8,300+
Volunteer hours

$1+ million
donated by employees to 170+ organizations

782
Units of blood donated to Canadian Blood Services, receiving the COVID Heroes Award

> "With the seamless transition to a virtual campaign, hosting online events, and even increasing employee donations, the Canadian Natural team never ceases to amaze us with what they can accomplish each year! United Way's partnership with Canadian Natural truly demonstrates the collective impact we can have in our city when we work together."

Karen Young,
President and CEO, United Way of Calgary and Area

Emergency Services team supporting Fort McMurray's flood response

During the 2020 spring flood in Fort McMurray, our Emergency Services team supported water response activities with two boats and water rescue gear for four days and four nights. This required four emergency response personnel on duty throughout each rotation, providing essential emergency response including: building checks, rescuing homeowners from their homes due to rising water levels, pet rescues and retrievals, and assisting business owners in securing and retrieving pertinent documentation.

To learn more about how we invest in and work with local communities, visit our website.

2021 Areas of Focus

- Continue to find ways to connect and engage with local stakeholders to address evolving community needs.
- Expand business opportunities and economic participation for Indigenous communities in our operations.
- Promote the Canadian Natural Building Futures Scholarship program and facilitate access for Indigenous applicants.
- Work with stakeholders to support responsible development as part of Canada's economic recovery, policy and regulatory competitiveness.

Working Together with Communities

Priorities in 2020

Engaging Stakeholders

- Continue to strengthen relationships with local stakeholders through ongoing engagement.
- Continue to improve community action plans, with better integration, tracking and reporting of community activities.
- Continue work with stakeholders to support policy and regulatory competitiveness.

Business Development

- Continue to enhance opportunities for economic participation by Indigenous communities in our operations, building capacity among locally owned companies, joint ventures and entrepreneurs.

Education and Training

- Continue to support education and training initiatives aligned with future employment opportunities in the oil and natural gas industry.

Community Investment

- Continue to invest in our community investment priority areas, ensuring we respond to evolving community needs, including local recovery efforts in response to COVID-19.

Accomplishments in 2020

700+

community activities supported/participated in

Integrated data collection and reporting of community investment activities to better support the communities

Worked with governments, municipalities, industry, businesses and suppliers to support responsible development, market access and industry competitiveness

$490 Million

in contracts with 159 Indigenous businesses

8,000+ Students

supported through online learning, literacy and breakfast programs during the pandemic

$8 Million

in employee/ contractor training

273 Students

hired for summer/cooperative work terms

129 Scholarships

across operations

Supported trades and training programs that promote employment and long-term opportunities

$25 Million

total community investment

$1.4 Million

in COVID-19 related support to organizations and communities

675 Organizations Supported

including COVID-19 relief for 158 organizations

Diversity and Inclusion

At Canadian Natural, we value and respect what makes us unique, and we support the view that having equality, diversity and inclusion at the heart of our culture will foster value creation. We are all diverse and unique, and by welcoming and celebrating our differences we can harness the strengths of our diverse teams. An inclusive approach strengthens innovation and creativity as part of our culture, and supports a resilient and dynamic company.

Canadian Natural is an equal opportunity employer and 'to develop people' is at the heart of our mission statement. Our staff recruitment and development decisions are determined by skill set and experience, and are governed by the principles of equality, equity, and reasonable accommodation. Our business depends on a diverse workforce of approximately 10,000 full-time employees who take pride in 'working together' and 'doing it right'.

We support inclusion and respect for diversity, and value the benefits that a diverse and talented workforce can bring to the entire organization. When we focus on knowledge, experience, skills and background, diversity is the outcome. Promotion of diversity allows for the inclusion of different perspectives and thoughts, mitigates against group bias and ensures that we have the opportunity to benefit from all available talent and ideas. By creating an atmosphere where all people are welcomed, Canadian Natural is a place where everyone can grow and contribute to the success of the organization.

Diversity and inclusion strategies

Employees can expect to perform their roles in a work environment free from discrimination or harassment. Our approach is reflected in our Code of Conduct and Human Rights Statements, supporting an inclusive workplace and adhering to the highest ethical standards, including respect for fellow staff, business associates and public officials, acting fairly, without harassment, intimidation or discrimination on the basis of race, gender, sexual orientation, age, religion, disability, colour, national or ethnic origin, or any other basis.

To ensure a respectful, diverse and inclusive workplace, Canadian Natural has several policies dealing with employment equity, diversity, discrimination and harassment. Canadian Natural encourages the advancement of women and minorities within and outside of the Company and supports diversity as a means to build high-performing, innovative teams, while promoting personal development. We foster an inclusive environment, sense of belonging and employee engagement, which contributes to improving everyone's performance.

Our strategies to enhance diversity and inclusion in the Company include:

- **Leadership**: Our Diversity Policy Statement applies from the top down and to all Company levels, starting with our Board of Directors for Board diversity and renewal, as well as to employees and contractors.
- **Processes and policies in place**: To provide a respectful and safe environment that supports equality and diversity, our 'Workplace Harassment and Violence Prevention' Policy is the basis of our 'Respect in the Workplace' training program, which was completed by all employees and contractors in 2020. We also have an Employment Equity Policy, Parental Leave Policy and a confidential and anonymous ethics hotline, ConfidenceLine (more information on ConfidenceLine is available here.)
- **Recruitment and talent attraction**: Canadian Natural offers a safe and inclusive work environment where everyone feels part of a team. All employees have equal access to continuing education and career development opportunities, and we work to develop local talent.
- **Programs for employee engagement/involvement**: Programs include our Gen Next young professional network, E3 (Engage, Educate, Empower) focusing on enhancing and creating opportunities for interaction, collaboration and knowledge sharing, and the Equality, Diversity and Inclusion (EDI) program in our International operations that promotes an inclusive culture based on mutual respect.
- **Programs to promote from within the company**: We develop people through internal training and mentorship, which are essential to our culture.

Diversity of the Board

Canadian Natural believes that having a Board of Directors whose members are diverse in background and experience can bring a broad perspective to enhance decision making

> "As a female in the fire service and proud member of the Canadian Natural Fire Department, I have always felt supported, never singled out or held back. I have been given many opportunities to better myself both personally and professionally, further developing many skills, including leadership."
>
> **Jalene Cartwright**,
> *Senior Firefighter, Albian Operations*

UN Sustainable Development Goals (SDGs) in this section

for good governance, guidance, and leadership. The Board supports diversity in all its forms and in sufficient numbers, and is committed to a diversity target where 30% of its independent directors are women, when all other factors relevant to Board effectiveness are considered. Currently, three of our eight independent Directors are women (37.5%), and one member of the Board identifies as a member of an ethnic and visible minority. For more information on the criteria for Director composition and nomination, read our Management Information Circular.

Talent attraction

To attract skilled and diverse people to our Company, our recruitment process considers equality, diversity and inclusion as part of our approach. We believe that when people feel included and connected with their differences being valued, they are enabled to achieve their full potential.

When identifying candidates for different roles, we take into account qualifications, expertise, background, skills and knowledge. Through acquisitions of other companies, we also leverage the skills and experience of new employees, integrating them into our teams and culture.

Given that Canadian human rights law prohibits the collection of certain diversity information and/or the information requires employee consent or voluntary self-identification for release, we do not track or report diversity indicators in our workforce, such as the number of Indigenous peoples, visible minorities or people with disabilities.

Employee training and development

To support education and training of staff, each employee has access to an annual professional development budget and is encouraged to use this fund for continuous development. Through annual performance reviews, employees receive regular feedback and clear links between business objectives and their career development goals. This annual review also assists in identifying employees for mentorship with senior colleagues experienced in the same discipline, to nurture their development.

Creating a workforce of empowered employees is essential to creating value, and therefore, developing people also means promoting people from within whenever possible. Our programs, from mentorships and apprenticeships to co-operative student opportunities, promote internal talent to fill positions. For example, our Engineer-in-Training (EIT) program provides mentorship with senior engineers and hands-on experience. We operate one of the largest Campus Recruitment programs in the country. Students are made to feel a part of the team, gaining experience and knowledge, and receiving training and mentorship that introduces them to and prepares them for full-time employment. Many of our students are hired for permanent positions upon graduation. Some of our student testimonials can be found on our Careers website.

At our International operations, we support local employment — for example, at our CDI operations, 90% of our staff is Ivorian. We also facilitate training programs and work together with communities and the education system to identify and develop local talent.

Supporting programs in the communities

Through our community investment plans, we support programs that focus on Indigenous communities, women, people with disabilities, seniors, veterans, youth and children in our operating areas. Some examples of our long-standing commitments are:

- Canadian Women's Foundation, Lois Hole hospital for women, and many women's shelters;
- Fresh Start Recovery Centre programs for individuals recovering from addiction;
- programs in support of Indigenous culture, health and capacity building;
- transportation services for disabled seniors and Elders, including our support for *Top 7 over 70*, an awards program celebrating older adults in Calgary and area;
- United Way across Alberta and the AFC Community Trust in Aberdeen, umbrella organizations that in turn support diversity and inclusion programs;
- Science, Technology, Engineering, Arts and Math (STEAM) programs that promote women and minorities in the workforce; and
- our International operations continue to focus on increasing gender balance in the Aberdeen energy industry to support a prosperous and sustainable future across the sector.

We engage the local community across all of our operations, including Indigenous neighbours, and seek different perspectives and ideas to address issues and explore opportunities. We support events, education, employment and businesses development initiatives. Read about how we engage and work together with communities on pages 42 to 47.

Canadian Natural employees working together during a plane-pulling event supporting a community fundraiser.

Performance Data

The Company's performance data is based on operated assets. From June 1, 2017 onward, North American Exploration and Production (NA E&P) operations include the Peace River Complex, and oil sands mining and upgrading operations include the Albian mines (bitumen production). From Q2 2019 onward, NA E&P operations include Kirby North, Jackfish and additional primary heavy oil assets.

The Company's GHG emission estimates are prepared internally using reported production volumes and standard emission factors. Scope 1, direct GHG emissions reporting, is based on operational control, excluding non-operated emissions. Scope 2, indirect GHG emissions, account for emissions from the generation of energy purchased and consumed by the Company. Facilities subject to third party verification for direct and indirect emissions are Albian, Horizon, Primrose and Wolf Lake, Peace River Complex, Kirby South, Kirby North, Jackfish, Wapiti gas plant, and Brintnell power station. Facilities that are subject to third party verification for direct emissions include Senlac, North Tangleflags, fuel combustion emissions at both Alberta and Saskatchewan Conventional facilities, British Columbia operations, and UK operations.

All our 2020 direct emissions from our Alberta oil sands in situ and mining operations, 90% of our total direct emissions and 63% of our indirect emissions, were third-party verified.

EMPLOYMENT

Distribution of Canadian Natural Employees

Number of employees	2017	2018	2019	2020
North America Exploration and Production	4,496	4,395	4,857	**4,736**
Oil Sands Mining and Upgrading	5,097	4,948	4,979	**4,918**
International Exploration and Production	380	366	344	**339**
TOTAL	**9,973**	**9,709**	**10,180**	**9,993**

Exposure hours (millions) — based on a 12-hour shift	2017	2018	2019	2020
North America Exploration and Production	42.18	44.71	42.88	**38.10**
Oil Sands Mining and Upgrading	34.05	37.94	38.23	**39.55**
International Exploration and Production	3.90	4.98	5.22	**3.59**
TOTAL	**80.13**	**87.63**	**86.33**	**81.24**

ECONOMIC CONTRIBUTIONS

Contributions to economies ($ millions)	2017	2018	2019	2020
Community Investment	12.4	15.3	25.0	**25.0**
Contracts with Indigenous businesses and services	370	500	550	**490**
Payments to suppliers	7,457	8,275	8,090	**6,832**

SAFETY

Total Recordable Injury Frequency (TRIF) (employees and contractors) per 200,000 hours worked	2017	2018	2019	2020
North America Exploration and Production	0.38	0.34	0.22	**0.20**
Oil Sands Mining and Upgrading	0.38	0.31	0.31	**0.22**
International Exploration and Production	1.33	0.72	0.61	**0.22**
Corporate	0.43	0.35	0.28	**0.21**

Lost Time Incident (LTI)[(1)] frequency (employees and contractors) per 200,000 exposure hours	2017	2018	2019	2020
Corporate	0.06	0.06	0.04	**0.03**

(1) *LTI is an injury incident where a worker is unable to return to work the next scheduled day.*

Fatalities - Employees	2017	2018	2019	2020
North America Exploration and Production	0	0	0	**0**
Oil Sands Mining and Upgrading	0	0	0	**0**
International Exploration and Production	0	0	0	**0**

Fatalities - Contractors	2017	2018	2019	2020
North America Exploration and Production	0	0	0	2
Oil Sands Mining and Upgrading	0	0	0	0
International Exploration and Production	0	0	0	0

Regulatory inspections compliance (% satisfactory)	2017	2018	2019	2020
Alberta	84.2	84.5	83.6	89.1
British Columbia	86.0	73.0	79.2	82.4

GHG and AIR EMISSIONS

Scope 1, Direct GHG emissions intensity (tonnes CO_2e/BOE)[1]	2017	2018	2019	2020
North America Exploration and Production	0.058	0.059	0.059	0.056
Oil Sands Mining and Upgrading[2]	0.045	0.037	0.036	0.036
International Exploration and Production	0.067	0.059	0.051	0.056
Corporate	0.055	0.052	0.051	0.050

(1) *Includes total direct emissions from combustion, flaring, formation CO_2, and other venting and fugitive leaks from equipment.*
(2) *Combined emissions intensity of Horizon's synthetic crude oil and Albian's bitumen production (as of June 1, 2017).*

Scope 1, Direct GHG emissions (million tonnes CO_2e)[1]	2017	2018	2019	2020
North America Exploration and Production	13.30	12.99	13.76	14.45
Oil Sands Mining and Upgrading	5.94	7.45[2]	6.91	7.09
International Exploration and Production	1.79	1.53	1.45	1.19

(1) *Includes total direct emissions from combustion, flaring, formation CO_2, and other venting and fugitive leaks from equipment.*
(2) *Increase reflects Albian's bitumen production from June 1, 2017 onward and full year of Albian operations as of 2018.*

Direct GHG emissions from fuel consumption[1] (million tonnes CO_2e)	2017	2018	2019	2020
North America Exploration and Production	9.43	9.40	10.48	11.61
Oil Sands Mining and Upgrading	3.38	4.35	4.21	4.39
International Exploration and Production	1.04	1.03	0.93	0.81

(1) *Self-generated electricity. Includes GHG emissions from operated cogeneration plants.*

Scope 2, Indirect GHG emissions (million tonnes CO_2e)[1]	2017	2018	2019	2020
North America Exploration and Production				
Electricity consumption (TWh) - total	2.63	2.79	2.85	2.90
Electricity consumption (TWh) from renewable sources	0.19	0.21	0.18	0.18
Indirect GHG emissions	1.69	1.47	1.54	1.58
Oil Sands Mining and Upgrading[2]				
Electricity consumption (TWh)	1.07	1.86	1.65	1.88
Electricity indirect GHG emissions	0.30	0.46	0.36	0.49
Steam imports (PJ)	11.06	19.02	18.47	17.71
Steam indirect GHG emissions	0.70	1.20	1.19	1.15
Total indirect GHG emissions	1.00	1.66	1.55	1.64

(1) *Purchased electricity.*
(2) *Includes Albian's electricity and steam from third-party cogeneration plant.*

Performance Data

Total natural gas flared (10^3m^3)	2017	2018	2019	2020
North America Exploration and Production	100,504	96,209	97,742	109,400[1]
Oil Sands Mining and Upgrading	24,536	20,422	14,357	19,319[2]
International Exploration and Production	292,458	195,233	210,702	152,935

(1) *Increase due to regulatory change in flare gas definition (fuel gas volumes that are used to assist the flare operation are now reported as flare).*
(2) *Increase due to higher production.*

Total natural gas vented (10^3m^3)	2017	2018	2019	2020
North America Exploration and Production	109,093	102,467	98,762	100,253

Total methane emissions (million tonnes CO_2e)	2017	2018	2019	2020
North America Exploration and Production	4.38	4.11	3.89	3.31

NOx emissions (tonnes)	2017	2018	2019	2020
North America Exploration and Production	54,086	55,310	49,191	47,507
Oil Sands Mining and Upgrading	12,189	15,141	15,866	15,979
International Exploration and Production[1]	2,118	1,663	1,576	1,473

(1) *UK only*

SOx emissions (tonnes)	2017	2018	2019	2020
North America Exploration and Production	6,639	6,863	9,364[2]	12,851[3]
Oil Sands Mining and Upgrading	2,419	2,693	2,737	2,395
International Exploration and Production[1]	149	105	179	180

(1) *UK only.*
(2) *Emissions increased compared to 2018 due to acquisitions.*
(3) *Emissions increased compared to 2019, representing full year of Kirby North and Jackfish thermal in situ operations, and Pine River gas plant.*

LAND

Abandonment, remediation and reclamation projects	2017	2018	2019	2020
North America Exploration and Production (Area-based closure)				
Number of active operated wells	53,013	52,643	49,986	48,093
Number of inactive operated wells[1]	23,292	23,638	28,946	30,188
Number of wells abandoned	771	1,293	2,035	1,065
Number of pipelines abandoned	1,309	2,886	2,842	1,761
Number of reclamation certificates submitted	604	1,012	912	1,050
Number of reclamation certificates received	596	717	893	854
Hectares reclaimed (area reclamation certified)	1,273	1,383	2,160	2,065
Trees/seedlings planted	301,410	144,417	394,773	503,345
Oil Sands Mining and Upgrading				
Hectares reclaimed	769[2]	176	276	352
Trees/seedlings planted	353,790	582,144	571,193	874,214

(1) *Based on the Alberta Energy Regulator definition for inactive well sites.*
(2) *Includes Albian's cumulative total, reflecting consistent and integrated approach across Oil Sands Mining and Upgrading operations.*

Facility decommissioning, North America Exploration and Production	2017	2018	2019	2020
Number of facilities and well equipment removed[1]	58	84	287	502
Number of site remediation projects completed or reviewed and ready for reclamation[2]	4	53	203	162
Number of ongoing remediation projects	217	348	351	387

(1) *2017-2018 figures represent facilities removed only. Starting in 2019, we include facilities and well equipment removed.*
(2) *2017-2018 figures represent remediation projects completed and ready for reclamation. Starting in 2019, we include remediation projects completed and/or reviewed and ready for reclamation.*

WATER

Total water withdrawal by source (million m³), North America Exploration and Production	2017	2018	2019	2020
Fresh water total[1]	8.05	11.05	10.11	**9.13**
Surface water	3.49	4.25	3.60	**2.63**
Groundwater	4.55	6.80[4]	6.52	**6.50**
Saline groundwater total	6.97	8.89	6.94	**5.33**
Produced water and flowback generated[2]	46.91	48.05	58.50	**66.60**
Produced water recycled[3] (%)	83	83	83	**88**
Produced water discharge (%)	18	18	17[5]	**13**

We began reporting metrics aligned with Sustainability Accounting Standards Board (SASB) recommendations in 2019.
(1) *All fresh water withdrawn for our NA E&P operations is consumed.*
(2) *Flowback is the recovered hydraulic fracturing fluid that returns to the surface during a hydraulic fracturing operation that may often be mixed with produced water.*
(3) *Includes major thermal in situ (Kirby South, Kirby North, PAW, Peace River Complex and Jackfish) and conventional (Pelican Lake, Nipisi, Wembley, Sweeny and Pierson) operations.*
(4) *Increase in fresh ground water use at Pelican Lake, and at Kirby North in preparation for start-up in 2019.*
(5) *Restated to remove volumes not associated with production.*

Total water withdrawal by source (million m³), Oil Sands Mining and Upgrading	2017	2018	2019	2020
Fresh water total[1]	71.70	76.11	65.73	**86.07**
Surface water	66.17	68.66	59.38	**79.41**[6]
Ground water	5.53	7.44	6.35	**6.66**
Saline water total[2]	0.28	0.58	0.40	**0.39**
Water from recycled sources[3] (%)	79	81	85	**84**
Volume of water recycled[4]	210	231	239	**237**
Water discharge[5] (%)	2	3	10	**12**
Fresh water consumption	70.27	73.56	59.06	**75.45**

We began reporting metrics aligned with Sustainability Accounting Standards Board (SASB) recommendations in 2019. Fresh water consumption is defined as total fresh water withdrawn minus water returned.
(1) *Includes water withdrawals from the Athabasca River and all other surface water sources for Horizon and Albian, as well as runoff water. Fresh water withdrawals remain well below authorized withdrawal limits.*
(2) *Includes water used in Albian's production process, and Horizon's saline water from depressurization in the mine that is not used in our production process.*
(3) *Percentages from 2017 to 2018 were restated to reflect recycled river water only (does not include runoff).*
(4) *Volumes of water recycled are greater than water withdrawn as water is used more than once through the process.*
(5) *Includes Albian clean water discharge from settling ponds designed to remove sediment, and Horizon's sump.*
(6) *Increase in surface water runoff as a result of a significant rainfall. A portion of the storm water is collected and used in our production process.*

Total water discharge (million m³), International Exploration and Production	2017	2018	2019	2020
North Sea	19.01	15.23	17.63	**18.75**
Offshore Africa	1.64	1.75	1.60	**1.55**
Total water consumption[1]	16.34	16.84	23.69[2]	**22.43**

(1) *Sea water injection (lifted and treated sea water injected downhole to improve production of the fields).*
(2) *Water injection increased at Ninian Central Platform, and Baobab and Espoir FPSOs. Water injection maintains the pressure within the reservoir to improve production.*

Oil in water content (mg/l), International Exploration and Production	2017	2018	2019	2020
North Sea[1]	16.67	16.42	16.63	**18.50**
Offshore Africa	11.03	11.66	19.51	**13.92**

(1) *Oil in water content remains well below regulatory requirement of <30 mg/l.*

SPILLS

Reported to regulatory agencies, according to jurisdictional requirements, including oil, produced water and refined products.

Number of reportable spills	2017	2018	2019	2020
North America Exploration and Production	270	281	276	**214**
Oil Sands Mining and Upgrading	102	128	93	**86**
International Exploration and Production	10	11	2	**6**

Performance Data

Volume spilled (m^3)	2017	2018	2019	2020
North America Exploration and Production	2,122	1,572	1,824	**1,074**
Oil Sands Mining and Upgrading[1]	9,239	20,613	8,100	**8,458**
International Exploration and Production	1.29	1.04	0.02	**0.72**

(1) *Majority of spills are from tailings lines (low risk spills consisting of water, sand, silt and trace oil). All spills were contained on lease. 2018 spill volumes were from Horizon's Bitumen Production area pump box that was modified to reduce spills.*

Number of spills and leaks/production (MMBOE)	2017	2018	2019	2020
North America Exploration and Production	1.18	1.29	1.18	**0.83**
Oil Sands Mining and Upgrading	0.86	0.69	0.54	**0.48**
International Exploration and Production	0.37	0.42	0.07	**0.28**

Volume spilled or leaked/production (m^3/MMBOE)	2017	2018	2019	2020
North America Exploration and Production	9.3	7.2	7.8	**4.2**
Oil Sands Mining and Upgrading	77.6	111.3	46.8	**47.2**
International Exploration and Production	0.05	0.04	0.00	**0.03**

Number of leaks/1,000 km pipeline	2017	2018	2019	2020
North America Exploration and Production	1.49	1.25	1.20	**1.23**

WASTE

Weight of waste (thousand tonnes)	2017	2018	2019	2020
North America Exploration and Production				
Hazardous waste - Off-site disposal (third-party)	55	78	81	**79**
Non-hazardous waste	1,445	1,421	1,285	**1,175**
On-site disposal (owned)[1]	722	549	644	**741**
Off-site disposal (third-party)	723	872	642	**433**
Oil Sands Mining and Upgrading				
Hazardous waste - Off-site disposal (third-party)	0.15	0.49	0.31	**0.24**
Hazardous waste recycled	6	8	0.32[4]	**0.27**
Non-hazardous waste	14	18	16	**20**
On-site disposal (owned)	13	13	15	**19**
Off-site disposal (third-party)	1	4	0.44[5]	**1**
Non-hazardous waste recycled	23	40	39	**36**
International Exploration and Production[2]				
Hazardous waste	0.09	0.17	0.05	**0.04**
Hazardous waste recycled	0.03	0.04	0.07	**0.11**
Non-hazardous waste	0.44	0.30	0.11	**0.07**
Scrap metal recycled [3]	16	15	0.42	**0.27**
Other non-hazardous waste recycled	0.67	0.37	0.53	**0.39**

Waste information focuses on oilfield waste, including fluid and solid waste based on a conversion of all volumes to tonnes. Oil sands Mining and Upgrading waste data fluctuates year to year with timing and size of turnarounds. Hazardous waste includes streams such as tank clean out fluids and sludge, wastewater treatment and solids, filter cake and filters and other substances. Non-hazardous waste includes hydrocarbon and salt impacted soils, spent lubricating oil, drilling waste and produced sand. Waste sent to recycling facilities includes empty containers, lube oil, batteries, filters, tires, scrap metal, and other miscellaneous recyclables.

(1) *Numbers were restated to reflect solids disposal only and to not include water returned to the formation.*

(2) *All International operations waste is disposed of or treated at third-party facilities. Ninian South has a dedicated drill cuttings re-injection well, therefore no drilling waste is sent to shore.*

(3) *Includes Murchison decommissioning project in 2017, and Murchison and Ninian North decommissioning projects in 2018.*

(4) *Hazardous waste recycled in Oil Sands Mining and Upgrading operations decreased due to a reclassification of used lube oil.*

(5) *Non-hazardous waste off-site disposal in oil sands mining and upgrading decreased, with most waste being recycled.*

Forward Looking Statements

Certain statements relating to Canadian Natural Resources Limited (the "Company") in this document or documents incorporated herein by reference constitute forward-looking statements or information (collectively referred to herein as "forward-looking statements") within the meaning of applicable securities legislation. Forward-looking statements can be identified by the words "believe", "anticipate", "expect", "plan", "estimate", "target", "continue", "could", "intend", "may", "potential", "predict", "should", "will", "objective", "project", "forecast", "goal", "guidance", "outlook", "effort", "seeks", "schedule", "proposed", "aspiration" or expressions of a similar nature suggesting future outcome or statements regarding an outlook. Disclosure related to expected future commodity pricing, forecast or anticipated production volumes, royalties, production expenses, capital expenditures, income tax expenses and other guidance provided throughout the Company's Management's Discussion and Analysis ("MD&A") of the financial condition and results of operations of the Company, constitute forward-looking statements. Disclosure of plans relating to and expected results of existing and future developments, including, without limitation, those in relation to the Company's assets at Horizon Oil Sands ("Horizon"), the Athabasca Oil Sands Project ("AOSP"), Primrose thermal projects, the Pelican Lake water and polymer flood project, the Kirby Thermal Oil Sands Project, the Jackfish Thermal Oil Sands Project, the North West Redwater bitumen upgrader and refinery, construction by third parties of new, or expansion of existing, pipeline capacity or other means of transportation of bitumen, crude oil, natural gas, natural gas liquids ("NGLs") or synthetic crude oil ("SCO") that the Company may be reliant upon to transport its products to market, and the development and deployment of technology and technological innovations also constitute forward-looking statements. These forward-looking statements are based on annual budgets and multi-year forecasts, and are reviewed and revised throughout the year as necessary in the context of targeted financial ratios, project returns, product pricing expectations and balance in project risk and time horizons. These statements are not guarantees of future performance and are subject to certain risks. The reader should not place undue reliance on these forward-looking statements as there can be no assurances that the plans, initiatives or expectations upon which they are based will occur.

In addition, statements relating to "reserves" are deemed to be forward-looking statements as they involve the implied assessment based on certain estimates and assumptions that the reserves described can be profitably produced in the future. There are numerous uncertainties inherent in estimating quantities of proved and proved plus probable crude oil, natural gas and NGLs reserves and in projecting future rates of production and the timing of development expenditures. The total amount or timing of actual future production may vary significantly from reserves and production estimates.

The forward-looking statements are based on current expectations, estimates and projections about the Company and the industry in which the Company operates, which speak only as of the date such statements were made or as of the date of the report or document in which they are contained, and are subject to known and unknown risks and uncertainties that could cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such risks and uncertainties include, among others: general economic and business conditions (including as a result of effects of the novel coronavirus ("COVID-19") pandemic and the actions of the Organization of the Petroleum Exporting Countries ("OPEC") and non-OPEC countries) which may impact, among other things, demand and supply for and market prices of the Company's products, and the availability and cost of resources required by the Company's operations; volatility of and assumptions regarding crude oil and natural gas and NGLs prices including due to actions of OPEC and non-OPEC countries taken in response to COVID-19 or otherwise; fluctuations in currency and interest rates; assumptions on which the Company's current guidance is based; economic conditions in the countries and regions in which the Company conducts business; political uncertainty, including actions of or against terrorists, insurgent groups or other conflict including conflict between states; industry capacity; ability of the Company to implement its business strategy, including exploration and development activities; impact of competition; the Company's defense of lawsuits; availability and cost of seismic, drilling and other equipment; ability of the Company and its subsidiaries to complete capital programs; the Company's and its subsidiaries' ability to secure adequate transportation for its products; unexpected disruptions or delays in the mining, extracting or upgrading of the Company's bitumen products; potential delays or changes in plans with respect to exploration or development projects or capital expenditures; ability of the Company to attract the necessary labour required to build, maintain, and operate its thermal and oil sands mining projects; operating hazards and other difficulties inherent in the exploration for and production and sale of crude oil and natural gas and in mining, extracting or upgrading the Company's bitumen products; availability and cost of financing; the Company's and its subsidiaries' success of exploration and development activities and its ability to replace and expand crude oil and natural gas reserves; timing and success of integrating the business and operations of acquired companies and assets; production levels; imprecision of reserves estimates and estimates of recoverable quantities of crude oil, natural gas and NGLs not currently classified as proved; actions by governmental authorities (including production curtailments mandated by the Government of Alberta); government regulations and the expenditures required to comply with them (especially safety and environmental laws and regulations and the impact of climate change initiatives on capital expenditures and production expenses); asset retirement obligations; the adequacy of the Company's provision for taxes; the continued availability of the Canada Emergency Wage Subsidy ("CEWS") or other subsidies; and other circumstances affecting revenues and expenses.

The Company's operations have been, and in the future may be, affected by political developments and by national, federal, provincial, state and local laws and regulations such as restrictions on production, changes in taxes, royalties and other amounts payable to governments or governmental agencies, price or gathering rate controls and environmental protection regulations. Should one or more of these risks or uncertainties materialize, or should any of the Company's assumptions prove incorrect, actual results may vary in material respects from those projected in the forward-looking statements. The impact of any one factor on a particular forward-looking statement is not determinable with certainty as such factors are dependent upon other factors, and the Company's course of action would depend upon its assessment of the future considering all information then available.

Readers are cautioned that the foregoing list of factors is not exhaustive. Unpredictable or unknown factors not discussed in the Company's MD&A could also have adverse effects on forward-looking statements. Although the Company believes that the expectations conveyed by the forward-looking statements are reasonable based on information available to it on the date such forward-looking statements are made, no assurances can be given as to future results, levels of activity and achievements. All subsequent forward-looking statements, whether written or oral, attributable to the Company or persons acting on its behalf are expressly qualified in their entirety by these cautionary statements. Except as required by applicable law, the Company assumes no obligation to update forward-looking statements in the Company's MD&A, whether as a result of new information, future events or other factors, or the foregoing factors affecting this information, should circumstances or the Company's estimates or opinions change.

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Our 2020 Stewardship Report to Stakeholders aligns with recommendations from the Financial Stability Board Task Force on Climate-Related Financial Disclosures (TCFD) and the Sustainability Accounting Standards Board (SASB). The Report includes consolidated ESG and economic disclosures from the Global Reporting Initiative (GRI) Sustainability Reporting Standards and the Oil and Gas Sector Supplement. Our activities also contribute towards the United Nations Sustainable Development Goals (SDGs). Our disclosures and sustainability content are summarized in the TCFD disclosures index and GRI, SASB and SDG disclosures index as well as the Sustainabiliy Reporting section of our website.

We welcome your comments and suggestions on this report.

Canadian Natural produces a separate Annual Report, which is also available online.

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