

# Athabasca Oil Corporation

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2022

Environmental, Social & Governance Report

PUBLISHED MAY 2022

**ATHABASCA**  
OIL CORPORATION

# TABLE OF CONTENTS

## Introduction

Message from our President & CEO	1
About Athabasca Oil Corporation	2
Our Approach to Sustainability	3
ESG Goals	4
ESG Reporting Approach	5

## Greenhouse Gas Management

Technology Roadmap to Decarbonization	8
Carbon Capture & Storage	9
Technology Improving Environmental Performance	10

## Environment & Safety

Our Approach to Environmental Leadership	12
Air Quality Management & Renewable Energy	13
Water Stewardship	14
Land and Wildlife	15
Health & Safety	17

## Social

Stakeholder Engagement	19
Our People	20
Community Impact	21
Community Investments	22
Education	23
Diversity & Inclusion	23

## 11

Governance Structure	25
Committees & Membership	25
ESG Policies	26
Risk Management	27
Cyber Security	27

## Governance

<b>24</b>	
Governance Structure	25
Committees & Membership	25
ESG Policies	26
Risk Management	27
Cyber Security	27
<b>28</b>	
<b>Appendices</b>	
Data Tables and Glossary	29
Global Reporting Initiatives (GRI) Index	37
Sustainability Accounting Standards Board (SASB) Index Advisories	41
Task Force on Climate-related Financial Disclosure (TCFD) Index	44

## MESSAGE FROM OUR PRESIDENT & CEO

2021 was an exciting year at Athabasca. We saw signs of recovery from the COVID-19 global pandemic and the increasing demand for energy worldwide. I am incredibly thankful for the commitment, resiliency, and flexibility that our staff have shown over the past two years, maintaining safe operations and driving our business priorities forward.

At Athabasca, we believe that the responsible energy we produce here in Alberta makes people's lives better. We are at a turning point in our history where the world is working to transition to a lower-carbon future and Athabasca is seizing the opportunity to be a part of that future. This second annual ESG report is an opportunity for us to showcase the positive impacts we have made, highlight growth from last year, and explain how sustainability and responsibility are embedded into every decision we make.

We have a longstanding commitment to Environmental, Social, and Governance (ESG) initiatives and we are proud of the work we do to take care of the environment and the communities where we operate. I want to highlight some examples of how we are putting our commitment to ESG into actions.

### Environmental Leadership

Athabasca continues to make progress in reducing our carbon footprint through investment in lower GHG intensity resources where new technology can also be deployed. In 2022, the Federal Government of Canada announced the **2030 Emissions Reduction plan**, which includes a pledge to reduce emissions by 40-45% from 2019 baseline with a path to net-zero emissions by 2050. We have reduced our GHG emissions intensity by greater than 20% since 2015 and are targeting a total 30% reduction by 2025. Athabasca is doing our part to help Canada achieve its **Paris Agreement** commitments and believes the world would greatly benefit from more Canadian energy.

In 2021 Athabasca established a partnership with Entropy Inc. to develop and implement a carbon capture and storage ("CCS") project at Leismer using Entropy's proprietary technology. The partnership is currently progressing detailed engineering plans and has developed a commercial model for investment that aligns with reducing carbon emissions and supporting our future aspiration of producing a net-zero barrel.

We continue to invest in technologies that increase energy efficiency and reduce land disturbance. An example is the continued expansion of non-condensable gas ("NCG") co-injection at our thermal assets where we have seen up to 50% reduction in GHG emissions on mature well pads.

Technology is the cornerstone to improving our environmental footprint and we look forward to engaging with industry and government to push boundaries and find innovative solutions that improve emissions intensity and lower overall emissions.

### Safety, Our People and Our Communities

The safety of our people and communities is foundational to our business. It underpins all of our decisions and continues to be a top priority for Athabasca. Our safety culture is deeply embedded and our total recordable injury frequency has averaged 0.2 cases per 200,000 work hours over the last three years, well below Industry average. We also recorded a third consecutive year with zero reportable hydrocarbon spills.

We have made strides integrating new employee offerings that foster Diversity & Inclusion within the organization including an International Women's Day celebration. We have also set a 2022 goal of hosting Indigenous Cultural Awareness Training for our organization.

With the ongoing pandemic through 2021, we did not lose sight of the importance of taking care of those who need it the most. We have continued to give back to our local communities through initiatives including charitable donations, and post-secondary scholarships and endowments across Calgary, Fort McMurray, Fox Creek and Edmonton.

### Governance

Our ESG strategy and performance is reviewed, considered, and fully integrated at the Board level. Our management team and Board are committed to incorporating ESG considerations and the application of technology in all our capital allocation decisions. HSE targets currently make up 20% of our annual corporate performance scorecard and will continue to reflect the importance of our broader ESG performance in years to come.

### Looking Ahead

Our focus on these ESG priorities aligns with our long-term business strategy. We will continue to execute our capital program in a safe and efficient manner with free cash flow generation directed to debt reduction in the near-term.

As we progress, I can promise you a focus on transparency and continuous advancement as we deliver on our commitments to our stakeholders, communities, and employees. I am proud of our progress to date and look forward to providing updates on our ESG journey.



## ABOUT ATHABASCA OIL CORPORATION

Athabasca Oil Corporation ("Athabasca") is an intermediate liquids-weighted producer operating in Canada's most active resource plays, including premier resource exposure to the oil sands near Fort McMurray, Alberta and light oil near Fox Creek, Alberta. Athabasca's common shares are listed on the Toronto Stock Exchange ("TSX") under the symbol ATH.

We believe that excellence in health, safety, and environment is essential to achieving our business goals and meeting the needs of our stakeholders. We are driven to be a valued partner in local communities and industry programs while developing Alberta's energy resources responsibly.

### Our Values



Our staff live Athabasca's values every day to drive results and make our company a great place to work. Our values are:

- **We are Passionate**
- **We Take Ownership**
- **We Are Great at What We Do**
- **We Get Things Done**

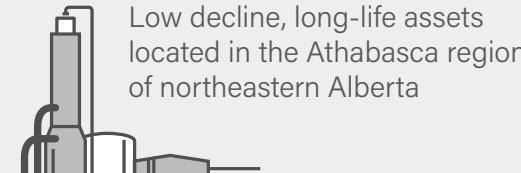
### Our Vision

**We proudly and responsibly produce Canadian energy to improve people's lives.**

### Our Company - 2021 Operation and Finance Results

<b>34,618 boe/d</b> (90% Liquids)	<b>\$92 Million</b> Capital Expenditures	<b>\$458 Million</b> Net Income	<b>\$92 Million</b> Free Cash Flow <sup>(1)(2)</sup>	<b>~\$300 Million</b> Liquidity Year-End <sup>(1)</sup>	<b>1.3 billion boe</b> Proved plus Probable Reserves (~100 yr. reserve life index)	<b>146</b> Employees
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#### Thermal Oil



Low decline, long-life assets located in the Athabasca region of northeastern Alberta

**Leismer** ~20,000 bbl/d current production

**Hangingstone** ~9,500 bbl/d current production

**Leismer Corner** regulatory approval for up to 80,000 bbl/d project

**Q4 2021 Production**  
28,084 bbl/d

**2021 Year-End Reserves**  
1,230 mmboe (Proved plus Probable)  
>100 year 2P reserve life index

#### Light Oil



High-margin, liquid rich operations located in the Greater Placid and Greater Kaybob areas of northwestern Alberta

**Montney** ~90,000 gross operated acres with ~150 gross future locations

**Duvernay** ~210,000 gross acres with ~700 gross future locations

**Q4 2021 Production**  
7,063 bbl/d

**2021 Year-End Reserves**  
72 mmboe (Proved plus Probable)  
~32 years reserve life index

## Our Approach to Sustainability

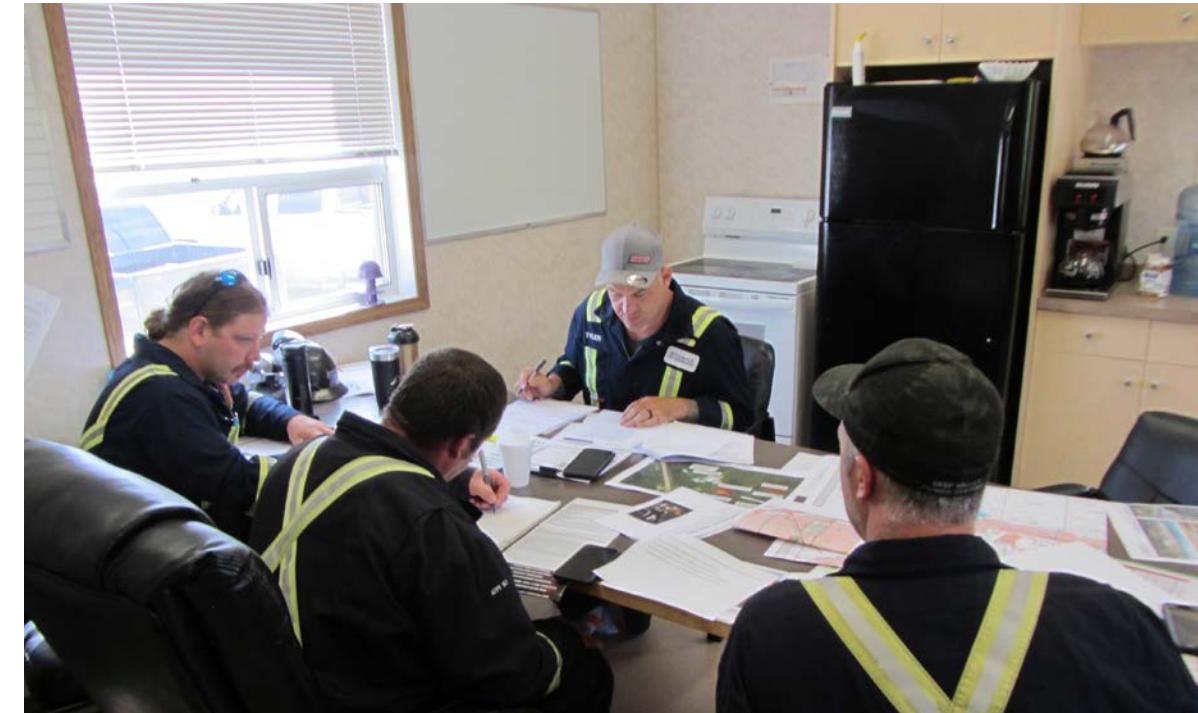
We have a longstanding commitment to Environmental, Social, and Governance ("ESG") initiatives and we believe it is key to our long-term success. We continue to focus on opportunities to improve our operating practices and have set meaningful targets to improve our performance.

We believe that Canadian energy not only improves lives around the world but it also helps improve environmental performance as Canada has implemented some of the most stringent environmental and regulatory requirements in the world. Athabasca acknowledges that Canada is a signatory to the **Paris Agreement** and that Canada has committed to reducing its GHG emissions by 40-45% below 2005 levels by 2030.

We also support the **United Nations Sustainable Development Goals ("UNSDG")** which promote prosperity while protecting the planet. The goals recognize that ending poverty must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection. We support the UNSDGs through our focus on safety, technology, the environment, corporate culture, communities, and providing affordable and clean energy.



Steam Chief at Leismer



Light Oil Operations staff

We have a longstanding history of consistently measuring, tracking, and reporting on ESG metrics. Looking ahead, we will continue to focus on goals that are clear, transparent and measurable.



ESG team meeting

## ESG Update

Many of our past ESG goals continued into 2021. These include reducing emissions intensity from 2015 levels by 30% by 2025, including ESG outcomes and impacts in all capital allocation decisions, and aligning climate disclosure to the pillars within the Task Force on Climate-Related Financial Disclosure ("TCFD") framework. In 2021, we had no major HSE incidents and are pleased to report there were no reportable hydrocarbon spills for 3 consecutive years. Our TRIF of 0.6 in 2021 was in line with our industry peers and screens in the top quartile on a 3-year average basis (0.2 versus peers at 0.6). We continued to evaluate our HSE metrics to learn from the year and set meaningful actions for stronger results in 2022.

A major priority last year was to prepare a technology roadmap for a lower carbon future. The road map evaluated various technologies reinforcing that carbon capture and storage would be the technology to deliver a step-change in our decarbonization. To further this technology progression, we signed a Letter of Intent with Entropy Inc., a cleantech company focused on commercializing energy transition technologies through the use of Carbon Capture and Storage. We have progressed by establishing a commercial framework and initiated detailed engineering.

## FUTURE GOALS



Environmental

**GHG Intensity:** By 2025, reduce Scope 1 emissions intensity by 30% from our 2015 baseline.



Social

**Carbon Capture and Storage:** In support of our GHG Intensity goals and our future net zero aspirations, Athabasca and Entropy are targeting to FID the Leismer CCS project following the completion of front end engineering design and a local injection test.



Governance

**Safety:** TRIF target of 0.5 in 2022, with an aspiration of no harm to people and no reportable hydrocarbon spills.

**Indigenous Relations:** Complete Indigenous cultural awareness training for Executives, leadership, and key team members in 2022.

**Board Governance with ESG:** Incorporate ESG goals into capital allocation decisions.

**Disclosures:** Continually improve external disclosure with alignment to leading ESG standards and frameworks including GRI, SASB, and TCFD.

# ESG REPORTING APPROACH

This report contains ESG information we consider most relevant to our business and our stakeholders. We continue to focus on ESG components that have the potential to significantly impact our operations, financial results, and are relevant to Athabasca's stakeholders.

For additional detail on our financial performance and information about our business, refer to our financial statements, our Management's Discussion and Analysis and our Annual Information Form ("AIF") which are available at [www.atha.com](http://www.atha.com) and filed on SEDAR at [www.sedar.com](http://www.sedar.com).

## ESG Governance

ESG is fully integrated into our business. ESG metrics and goals are included in the company's annual compensation scorecard and our Board reviews the ESG strategy and performance quarterly.

The Board is well informed through regular management updates on goals and accomplishments. Management is committed to engaging the Board on climate risks and opportunities to reduce overall greenhouse gas intensities and emissions. Our Board also takes a keen interest in our health and safety practices and performance.

Management reviews HSE performance at each quarterly Board meeting and discusses current and emerging issues.

## Scope and Boundary

Our report is guided by three reporting frameworks (GRI, SASB, and TCFD). Additionally, throughout the report we demonstrate support for the United Nations Sustainable Development Goals ("UNSDG") and believe our actions contribute to the 2030 global development priorities.

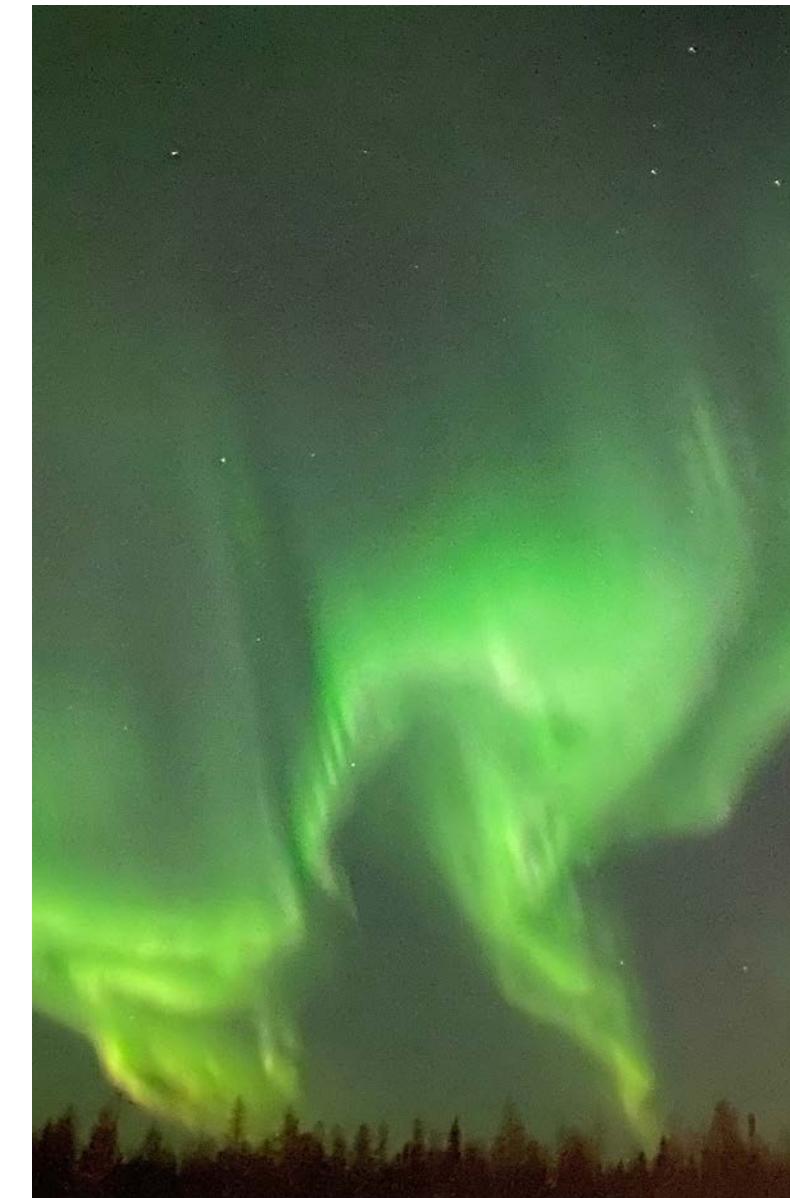
We have reported gross emissions and production information which includes third party interests from AOC operated facilities. Additionally, we have calculated a net emissions intensity based on AOC's portion of the total gross emissions and our net production. We have chosen to focus our efforts on areas directly within our operated control to ensure we have the most transparent, tangible, and attainable ambitions.

Unless otherwise stated, this report is with respect to the year ended December 31, 2021.

## Supporting Frameworks

Our report is guided by three reporting frameworks.

- The report references the Global Reporting Initiative ("GRI") Standards, however, does not include all requirements to be considered in accordance with GRI Standards. See Page 37 for GRI Index.
- The report is aligned with the Sustainability Accounting Standards Board ("SASB") Standard. See Page 41 for SASB Index.
- The report includes disclosure around climate change with alignment to the recommendations of the Task Force on Climate-related Financial Disclosure ("TCFD"). See Page 44 for TCFD Index.



Northern Lights near Hangingstone site

# GHG MANAGEMENT



## GHG MANAGEMENT

Canada and Alberta are world leaders in the development and implementation of rules-based systems for managing GHGs which incorporates legal minimums for carbon pricing. Alberta has forged equivalency agreements with federal GHG legislation and has proven record of GHG leadership as follows:

- First climate change legislation in Canada (2003);
- First North American jurisdiction to legislate mandatory GHG reductions (2007);
- Elimination of emissions from coal by 2023;
- Development of carbon capture and storage (Carbon Sequestration and Tenure Regulation, 2016);
- Developed the Technology Innovation and Emissions Reduction (TIER) Regulations which incorporates regulated greenhouse gas emissions pricing and an emissions trading system that requires verified compliance reporting. The funds collected in this program are used to fund new emissions reduction technologies;
- Oil sands emissions cap of 100 megatonnes (Oil Sands Emissions Limit Act, 2020); and
- Methane emissions reductions of 45% from 2014 levels by 2025 (Methane Emission Reduction Regulation, 2018).

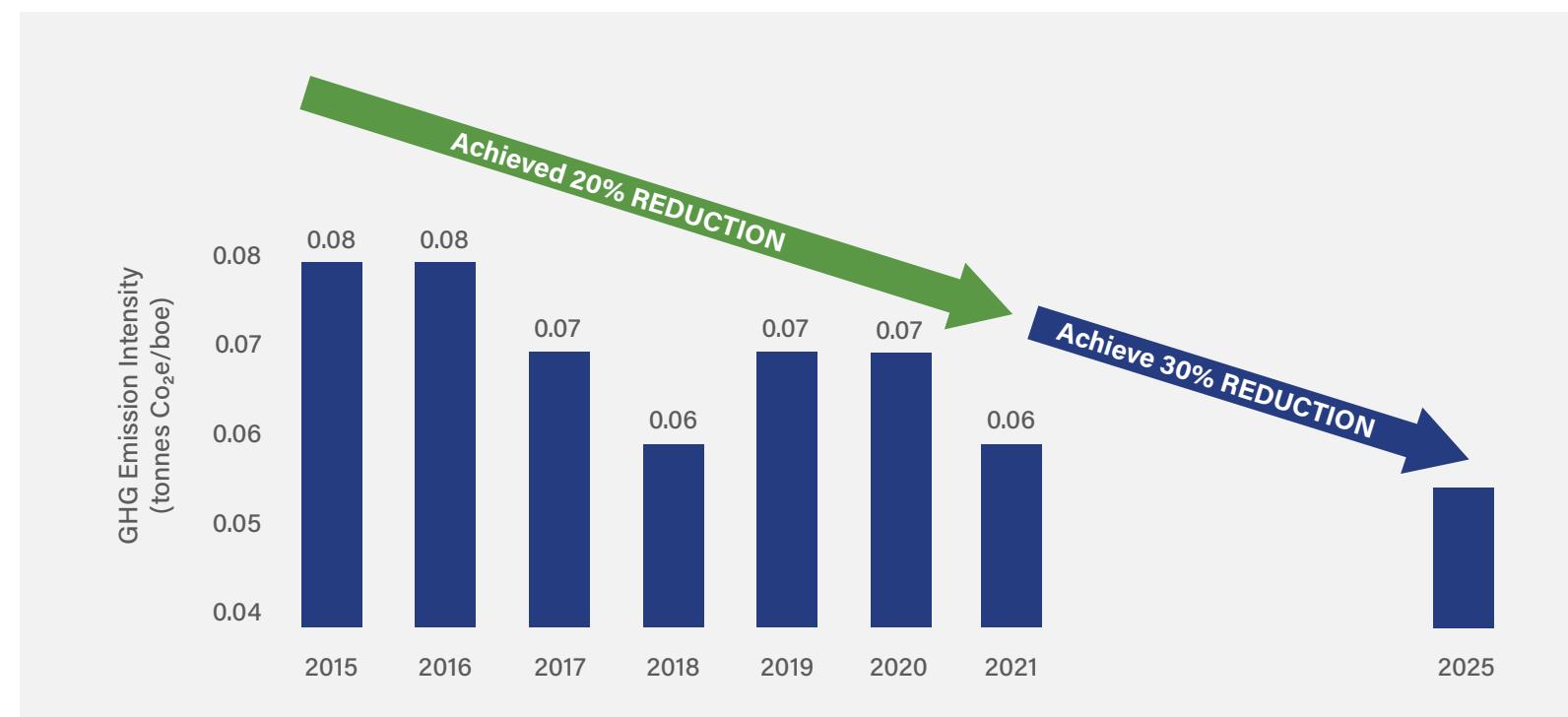
Alberta has some of the world's most stringent regulations and standards governing our energy projects. It is within this comprehensive system of GHG management that Athabasca operates and maintains compliance.

**Athabasca has set a clear climate goal for the future with a commitment to reduce emissions intensity from 2015 levels by 30% by 2025.**

In 2022, the Federal Government of Canada announced the 2030 Emissions Reduction plan, which includes a pledge to reduce emissions by 40-45% from 2019 baseline with a path to net-zero emissions by 2050.

We have been innovative in our approach and taken deliberate measures over the past several years to continuously improve our GHG performance. Our GHG emissions intensity has been reduced by over 20% since 2015 through the development of low-GHG intensity resources and the application of new technology.

**Athabasca Net Reported GHG Emissions Intensity (Scope 1)**



## TECHNOLOGY ROADMAP TO DECARBONIZATION

Athabasca has a strong track record of utilizing new technologies to improve environmental performance. To reach our intensity reduction goal we continue to focus on evaluating and implementing new technologies which have the potential to reduce both emissions intensity and total emissions.

There is no single solution to decarbonization, numerous technologies will be needed. In 2021, we developed a Technology Roadmap to Decarbonization, assessing technologies with the potential for emissions reductions. This included both mature and emerging technologies, evaluating their Technology Readiness Level ("TRL"), as well as cost and capacity for operational integration. Assessment category options included:

### 1. Efficiency & Optimization

Technologies that increase efficiency, decrease emissions, or optimize steam generation.

### 2. Replacement

Technologies that are a lower carbon intensity process near-term replacement for SAGD.

### 3. Long-Term Disruptors

Technologies that have the potential to replace or drastically enhance SAGD through disruptive innovation.

Of the technologies assessed, we determined that Carbon Capture and Storage ("CCS") is the key technology that will provide a step-change amplifying Athabasca's decarbonization plan.



## CARBON CAPTURE & STORAGE

Approximately 86% of Athabasca's GHG emissions are attributed to steam generation. These emissions are a concentrated source ideal for CCS technology.

**We signed a Letter of Intent ("LOI") with Entropy Inc., a cleantech company focused on commercializing carbon capture technologies.**

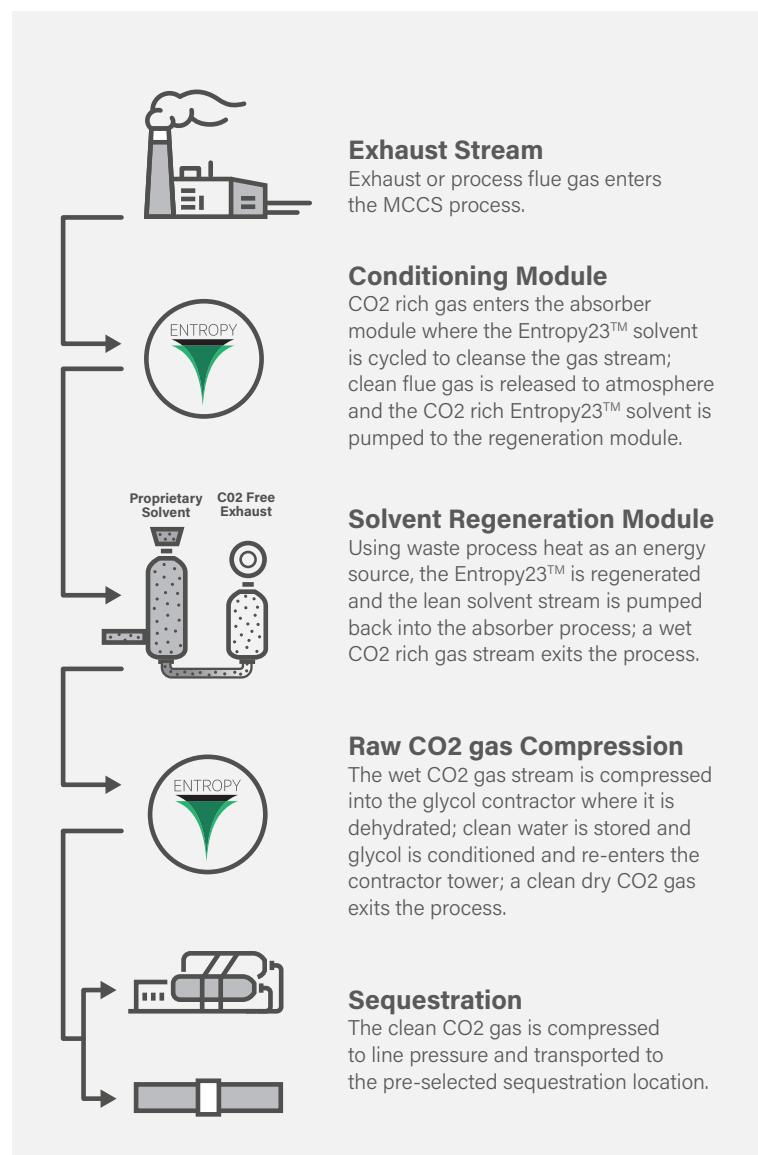
Together, we are working to design a modular carbon capture project to reduce our emissions with the goal of producing a "net zero" barrel at Leismer.

We are progressing detailed design engineering and we've developed a model for commercialization based on shared emission credits. The partnership is focused on designing a carbon capture module at Leismer, the evaluation of local storage, and potential options for carbon trunklines. The evaluation is a phased approach to CCS and is currently focused on carbon capture for the largest steam generator at Leismer.

In 2021, six of Canada's largest oil sands producers announced the Oil Sands Pathway to Net Zero initiative, with the goal of achieving net zero GHG emissions. The initial focus of the alliance is to develop a carbon capture and open access storage network for more than 20 oil sands facilities with the planned trunkline being proximal to Athabasca's assets.

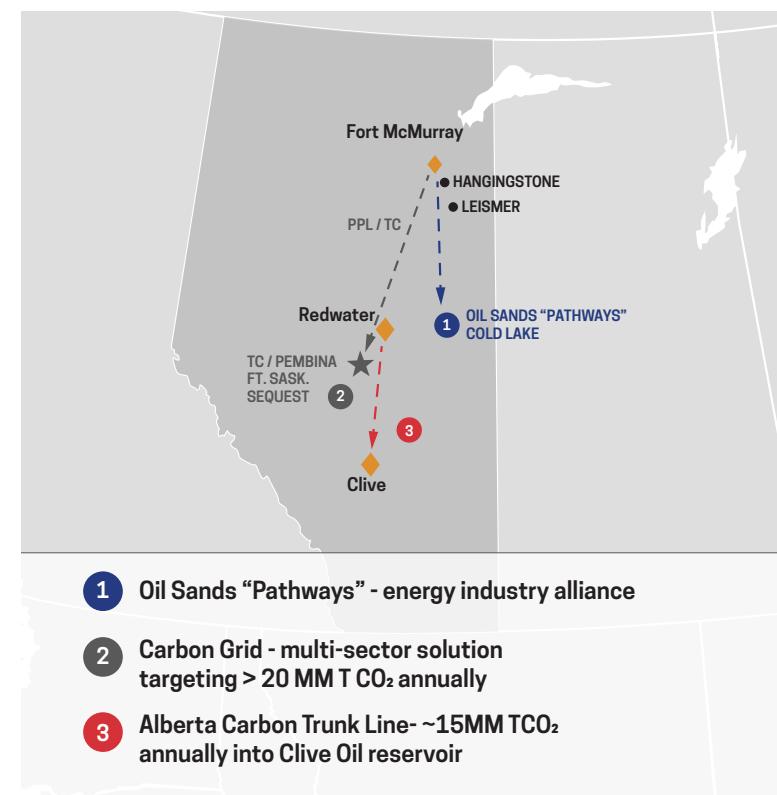
In parallel, industry has announced numerous carbon trunk line opportunities for delivery of carbon captured from the Athabasca oil sands region to sequestration hubs in Edmonton, Cold Lake and Central Alberta.

### Technology Overview

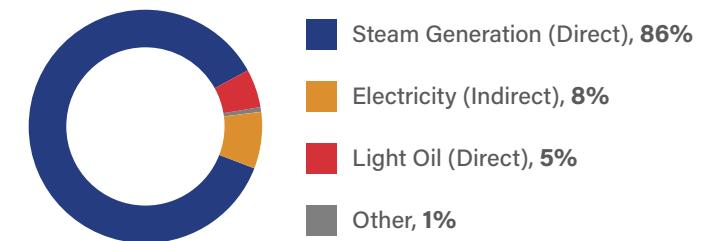


Source: <https://entropyinc.com>

### Project Map



### Athabasca GHG Emission Sources



# TECHNOLOGY IMPROVING ENVIRONMENTAL PERFORMANCE

Athabasca has a strong track record of utilizing new technology to improve environmental performance, having invested over \$60 million in technology designed to mitigate GHG emissions since 2015.

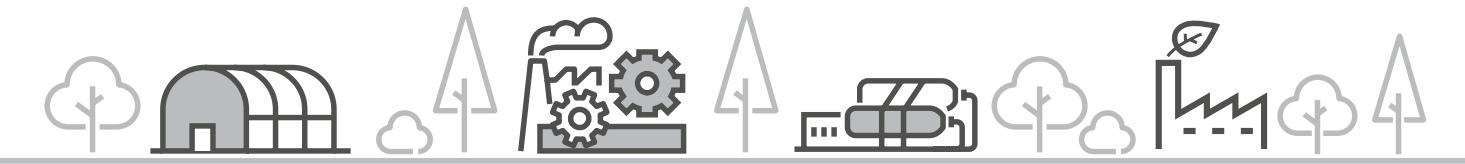
Moving forward we will continue to expand the application of successful technologies, evaluate the potential of new technology and measure our emissions intensity performance from the 2015 baseline year.

## Thermal Oil Properties

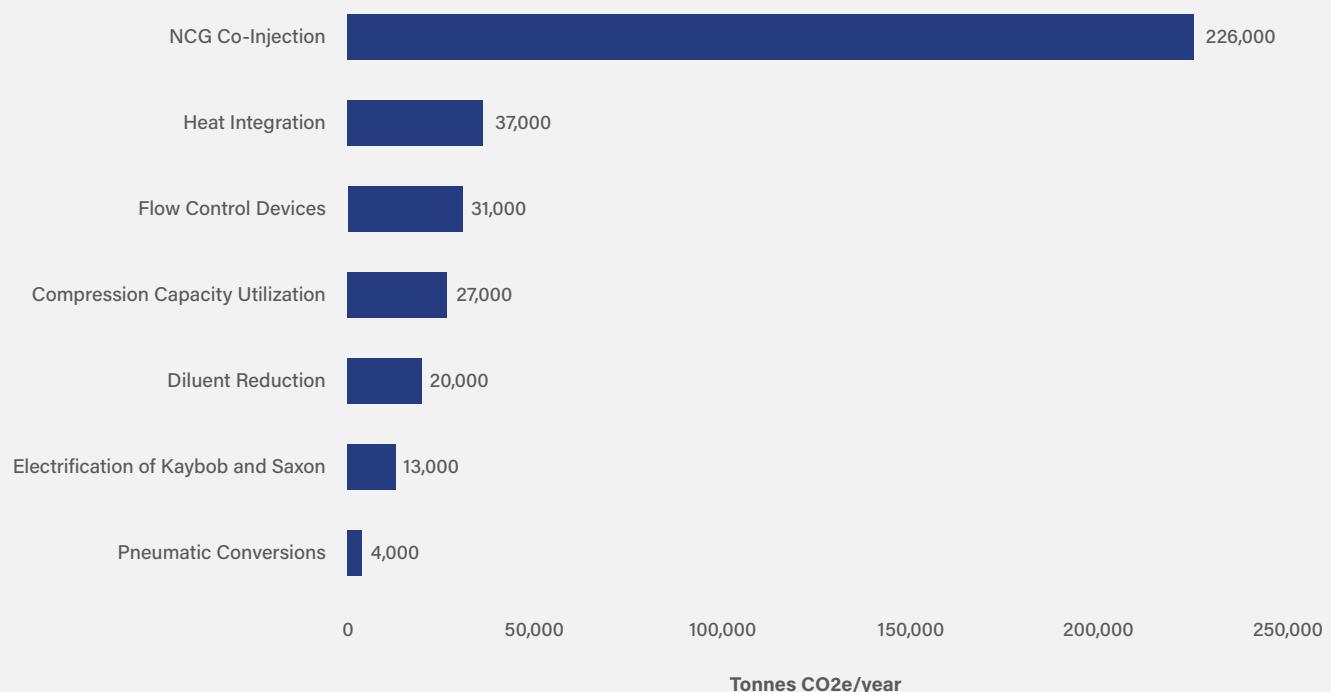
- Expanded non-condensable gas ("NCG") co-injection in 2021 to seven additional pads to reduce energy intensity. NCG co-injection has decreased energy intensity by 50% in Pad 1 - 4 at Leismer.
- Installed additional high efficiency heat exchangers to reuse waste heat energy.
- Continued Flow Control Device ("FCD") installation for new thermal wells (six in 2021) to increase the efficiency of SAGD operations. FCDs allow more efficient use of steam enabling wells to be drilled 50% longer.
- Continued to improve energy efficiency with on-going optimization of diluent recovery systems.

## Light Oil Properties

- Optimized artificial Lift with installation of advanced process control reducing energy use and chemical consumption.
- Continued build-out of a centralized gas lift system to better utilize compression.
- Electrification of two facilities have been completed with a third planned in 2022.
- Conversion of all pneumatics in 2021 (High - Low bleed) reducing methane venting.



## Applying Technology to Mitigate Emissions



# ENVIRONMENT & SAFETY



## OUR APPROACH TO ENVIRONMENTAL LEADERSHIP

We recognize that operating in an environmentally responsible manner is fundamental to ensuring the long-term sustainability of our business.

Canada has some of the most stringent environment regulations in the world. Canadian energy not only improves lives around the world but it is also helps improve environmental performance.

We have taken many deliberate measures, over the past several years, to continuously improve our environmental performance.

We also recognize the need to set clear climate goals for the future. Athabasca's environmental management system which includes GHG emissions, continues to be focused on:

- Air Quality
- Water Stewardship
- Land and Wildlife

Our projects are conceptualized, implemented, and managed to mitigate environmental impacts throughout the full lifecycle of a site from construction, through production operations to decommissioning and final reclamation.

### Kitaskine Nuwenene Wildland Provincial Park

When opportunities arise, we step up to demonstrate our leadership and commitment to the environment. In 2021, we were proud to contribute nearly 230,000 acres (61% of expansion lands) of the Kitaskino Nuwenéné Wildland Provincial Park expansion, **the world's largest area of protected boreal forest.**

The Park plays a vital role in preserving the Peace-Athabasca watershed providing habitat for at-risk species and enhancing connectivity between neighboring parks, crucial to maintaining ecological integrity. It also provides incremental protected land adjacent to the Wood Buffalo National Park, Canada's largest national park and a UNESCO Heritage Site. This area provides a key staging area for migratory birds and is home to many iconic species, such as Woodland Caribou and Ronald Lake bison.



Photos taken near/or on Athabasca property

## AIR QUALITY MANAGEMENT

Athabasca operates a comprehensive Air Quality Management Program to ensure emissions and air quality standards at our regulated facilities are maintained.

At processing facilities, we operate vapor recovery systems to ensure that gases like methane are captured and do not vent to atmosphere. In addition, we have implemented a rigorous Fugitive Emissions Management Program to identify and repair gas leaking from equipment.

At our Leismer facility, the largest steam generator is fitted with low NOx burners and combustion control technology (flue gas recirculation). We upgraded the power used by drilling rigs in our 2021 program from traditional diesel power sources to electric power. At Hangingstone we use ultra-low NOx boilers and our Light Oil stationary spark engines are on average 75% below emission requirements identified in the federal Multi-Sector Air Pollutants Regulations.

Athabasca is a participant and funder of the Wood Buffalo Environmental Association ("WBEA"). WBEA is the air shed monitoring network for the Athabasca oil sands region where our thermal operations are located. WBEA monitors the air, terrestrial, and human exposure. It is the most integrated and intensive air and terrestrial monitoring system, in Canada, for any one area.

### Renewable Energy

Athabasca supports the use of renewable energy in our operations. Solar panels have been installed at 144 sites across our assets. They enable us collect data from remote locations. We plan to install solar panels on all future observation well sites and in future remote locations.

Alberta has an established target for methane reduction – 45% below 2014 levels by 2025. Athabasca is taking action to ensure we collectively achieve these targets. In 2021, we converted all pneumatics on our Light Oil well pads from high bleed to low bleed, which reduced our methane venting by 13% from 2020 levels.



WBEA Air Quality Monitoring Station operating at Leismer



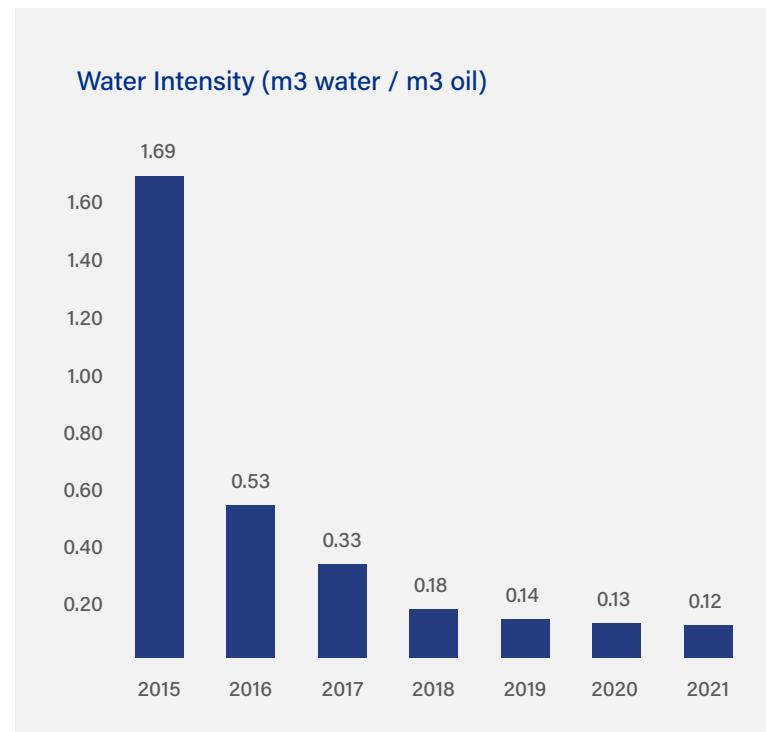
We install solar panels to help us monitor and collect data from remote locations where possible.

## WATER STEWARDSHIP

Water is essential to our operations. Our thermal oil production is in-situ, which has a lower water use intensity than oil sands mining and does not require tailings ponds.

We employ drum boiler and evaporator technology at our Hangingstone in-situ facility to maximize our water recycling capabilities (98%). Athabasca's Light Oil assets use water for well completions.

We have improved our water intensity year over year since 2015.



We apply best practices to minimize water consumption and we collaborate with stakeholders, regulators, and use professional consultants to ensure we are implementing the best strategies.

We are committed to industry best practices, and our light oil operations align with the Canadian Association of Petroleum Producers Guiding Principles and Operating Practices for Hydraulic Fracturing. This is best exemplified through the strategic use of four engineered water reservoirs located in our Placid and Saxon fields. These reservoirs provide flexibility to store water from both surface and subsurface sources during naturally high flow periods, eliminating withdrawals during low flow periods that could stress aquatic systems. The stored water can be used without impact.

In 2021, we completed a comprehensive review of our water use and water licenses. As a result of water use reductions and changes to mineral tenure, we were able to return to the province three Water Act licenses and the rights to use over 476,000 cubic meters of water annually.

**Our water management goal is to minimize water use and maintain the ecological integrity of aquatic habitats.**

### Aquatic Resources

We also completed two aquatic habitat enhancement projects in 2021. Channel restoration was completed at a watercourse crossing near our Leismer thermal oil facility. Bank erosion had occurred at the site due to higher-than-normal precipitation during the spring freshet. Restoration work was completed in the fall during low flow conditions.

At our Light Oil operations, a crossing with potential to alter stream flow and impact fish habitat was replaced with a single span bridge. The stream flow was returned to its' natural state, reconnecting upstream and downstream fish populations.



Waterflow restored under single span bridge (Light Oil operations)

## LAND AND WILDLIFE

**Stewardship of the land is a priority at Athabasca. We manage our activities to respect terrestrial systems and incorporate a lifecycle approach to managing our operations.**

### Wildlife Monitoring and Mitigation

Our goal is to minimize disturbance to wildlife. Our Wildlife Monitoring and Mitigation Program at Leismer uses remote cameras; the information gathered by the cameras helps us improve our operations and minimize any impacts. The data demonstrates that diverse wildlife continues to be abundant near our operations.

In 2021, we prepared a Comprehensive Wildlife Report that included 3 years of camera monitoring data (2018 - 2020) from 35 locations. During this 3-year period our operations personnel at Leismer also completed wildlife siting cards for over 500 animals observed near our operations.

We continue to participate in the Regional Industry Caribou Collaboration ("RICC") with other energy and forestry companies funding caribou research and caribou habitat restoration projects. We also participate in an industry working group developing mitigation measures for caribou populations in the Little Smoky Caribou Range in Alberta.



Lynx photographed at remote camera location near Leismer



Otters at Leismer

### Applying Technology to Reduce Land Disturbance

To additionally reduce our impact on the land, we have deployed downhole technology enabling longer lateral well sections. Wells drilled at Leismer since 2019 have 1,250 m lateral sections, including the L8 north pad drilled in 2021. These newer wells are over 50% longer than the wells drilled on the initial 6 Leismer pads. Longer wells access more resource, resulting in fewer well pads being constructed over the life of a development. This decreases overall land disturbance and construction expenditures.

In Light Oil, our past programs and future developments are designed to be multi-well pads from a single surface location, which reduces the footprint by 65% (based on a standard single horizontal pad site size of 1.44ha/well).



Hangingstone pad site

## Reclamation

Reclamation is an ongoing activity throughout Athabasca's operations. We implement progressive reclamation meaning that when exploration areas, well pads, and roads are no longer productive or needed, they are restored to their natural state.

We planted over 13,000 seedlings at reclaimed sites in 2021.

We also applied for our final reclamation certificate for oil sands exploration programs. This represents reclamation of 52 oil sands exploration programs, 1,300 sites, and over 700 ha of restored lands.

## Liability Management

Reclamation and closure activity (well abandonment and facility decommissioning) reduce liability.

Athabasca monitors the evolving liability management framework, leveraging federal and provincial programs to ensure activities and spend accelerate the retirement of liabilities.

In 2021, the Inventory Reduction Program introduced mandatory closure spend targets. Athabasca's closure expenditures in previous years closely reflected the new required spend target under Provincial regulations. Moving forward we have aligned our planned abandonment and reclamation spending.

We have consistently reduced our liability through winter closure programs and plan to continue our participation in the Government of Alberta's Area-Based Closure ("ABC") program. Athabasca has participated in the ABC program since 2018, which allows us to execute our reclamation plans and better leverage each dollar spent. We have maximized our funding potential from the Federally funded and Provincially allocated Site Rehabilitation Program ("SRP"). In 2021, we spent \$1.0MM on reclamation and abandonments.

Athabasca has always maintained an industry leading Liability Management Rating ("LMR"). In 2021, we continued to more accurately quantify liability and improve our LMR by strategically completing four site specific liability assessments at larger facilities. These new assessments resulted in a reduction of \$12 million to our estimated liability and a direct change in the LMR from 13.5 to 15.4.



Leismer 2021 tree planting and vegetation



5-year old tree at Hangingstone (planted in 2016)

## HEALTH & SAFETY

The safety of our people and communities is foundational to our business. It underpins all our decisions and continues to be a top priority for Athabasca. Our Health, Safety and Environment ("HSE") Policy, which is signed by our CEO, makes it clear that everyone at Athabasca is accountable for ensuring a safe working environment. To support this goal, management is responsible for providing the resources and systems to manage tasks safely and to reduce our environmental impact. The policy holds that work only commences after it is confirmed that essential HSE protection systems are in place and that all steps are taken to mitigate hazards, control risks, and reduce our environmental impact.

At any of our field sites, camps, or in the office, Athabasca's safety leadership is ingrained at every level of our culture. Daily and non-routine risks are managed transparently. Our workers are empowered to make choices that ensure Athabasca is a safe place to work. Athabasca believes that the well-being of our people includes both physical safety and mental well-being. Our Employee and Family Assistance Program is an important part of supporting employees and their family's mental health. In 2021, we ran specific campaigns for Mental Health Week to foster employee wellbeing and provide education around mental health trends.

Athabasca's HSE performance metrics are reviewed and set annually by management and approved by Athabasca's Board. We tie our corporate performance scorecard and compensation for all employees with a 20% weighing to HSE results.

### Safety and Spill Performance

In 2021, Athabasca recorded a Total Reportable Injury Frequency ("TRIF") of 0.6. We continued to deeply embed our safety culture and our total recordable injury frequency has averaged 0.2 over the last three years, well below industry average. It is our goal to continuously achieve top quartile performance. Furthermore, Athabasca diligently reports and reviews spills of any type or size internally. We believe in learning from all incidents through established investigation techniques for future mitigation and prevention purposes and we are pleased to report that Athabasca has had zero hydrocarbon reportable spills in over three years.

### Hazard Identification & Risk Mitigation

Understanding the hazards and implementing effective control measures are essential to mitigating risk. Athabasca utilizes a variety of systems and processes to eliminate hazards and minimize risk:

- Formal risk assessments driven by our Pipeline and Facility Integrity Programs;
- Established work standards and site specific procedures;
- Pre-job hazard assessments and safety meetings to identify hazards and ensure strong communications;
- Creating a culture of reporting;
- Conducting regular HSE Audits/Inspections of equipment, facilities, and contractors;
- Implementation of a Learning Management System "(LMS)" to ensure our staff are adequately trained and competent; and
- Advanced Safety Leadership Training for site leaders.

Our commitment to Health and Safety is ongoing; we continue to ensure we model safe behaviour at all levels and host regular training opportunities so staff continue to keep safety top of mind. We want all of our employees and contractors to return home safely after each shift to their families.



Operation staff at Leismer



Operation staff in Fox Creek

# SOCIAL



ESG Team 2021

# STAKEHOLDER & COMMUNITY ENGAGEMENT

We believe relationships with our stakeholders and local communities based on trust, collaboration, and consultation help us successfully and responsibly build and execute the development plans for our assets. The table outlines Athabasca's key stakeholder groups and our specific engagement strategies designed to foster strong working relationships.



*ESG team reviewing stakeholder strategies*

## How We Engage With Stakeholders & Communities

### Indigenous Communities

- Direct consultation for capital projects
- Spring and fall operational updates
- Business development with indigenous companies
- Community investments and donations
- Biodiversity and land use planning

### Local Landowners and Communities

- Direct consultation for capital projects
- Support through active participation and charitable donations

### Employees and Contractors

- Town halls (quarterly)
- Development and training opportunities
- Performance reviews
- One-on-one communication
- HSE meetings

### Government and Regulators

- Approval process interactions
- Providing feedback for regulatory initiatives
- Engagement through industry and regulator working groups

### Industry Groups

- Explorers and Producers Association of Canada ("EPAC")

### Joint Industry Working Groups

- Canadian Heavy Oil Association ("CHOA")
- Foothills Landscape Management Forum
- Foothills Stream Crossing Partnership
- Regional Industry Caribou Collaboration ("RICC")
- Regional Oil Sands Alliance

### Shareholders

- Press releases
- Annual and quarterly reports
- Annual General Meeting
- Participation in investor conferences
- Marketing to prospective and existing investors
- ESG report



## OUR PEOPLE

The employees of Athabasca make our company a great place to work. We pride ourselves on creating a dynamic environment where all employees are given the opportunity to challenge themselves and drive great results. Our over 140 employees work across head office and our three field operations of Leismer, Hangingstone, and in Fox Creek. They care deeply about driving strong results, positively collaborating across the company, and supporting connections in the communities in which we live and work. We are committed to upholding and respecting human rights as reflected in the UN Universal Declaration of Human Rights and the Canadian Charter of Rights and Freedom.

Our employees play an integral role in driving our company's positive results. We publish our corporate scorecard annually and teams cascade the company's goals at all levels. We help our staff grow both professionally and personally through ongoing training and development programs, creating cross team and functional opportunities, and encouraging growth work assignments.

Athabasca is a member of the Canadian Heavy Oil Association ("CHOA"). As a corporate member of CHOA, Athabasca staff have the opportunity to expand their industry expertise and grow their skills by participating in workshops and panels. Athabasca continues to be an active member of the Exploration and Producers Association of Canada ("EPAC"). Athabasca's CEO is on the Board of Governors at EPAC.

During the year we ran several giving campaigns and photo contests to encourage our staff to come together even when working remotely. For example, to recognize Earth Day 2021, we encouraged our employees to get outside and clean up their local communities.

In 2022, we will be hosting Indigenous cultural awareness training to support internal employee education and strengthen meaningful consultation and reconciliation focused interactions with Indigenous Peoples.



Corporate staff in Calgary



Field operations staff at Leismer

## COMMUNITY IMPACT

**Athabasca supports the communities where we live and operate and works hard to build long-term relationships with all our stakeholders.**

Our engagement is guided by Athabasca's Three Pillars of Giving Back to the Community: Indigenous Relations, Community Investments, and Education.

### Indigenous Relations

Many of our operations are near Indigenous traditional territories. We acknowledge their relationship to the land and understand it is critical to focus on strong relationships built on awareness, communication, respect, and trust.

### Working with Indigenous-owned businesses

We engage our Indigenous communities early in our projects to procure local services from vendors from Indigenous communities. We ensure that local businesses are considered in our procurement process, and we track our expenditures with Indigenous vendors.

In 2021, Athabasca continued developing closure plans (abandonment and reclamation) for inactive assets eligible for the Site Rehabilitation Program ("SRP"). The SRP program is a federally funded provincially administered program developed to support oil and gas recovery from the COVID-19 pandemic. We engaged an Indigenous-owned business early on to help plan our abandonment activities and together in 2021 we continued to develop and submit SRP applications for closure activities. Athabasca is proud to collaborate and support Indigenous businesses and had expenditures of \$12 million in 2021.

### Activities

In 2021, we were able to strengthen our relationships by:

- Working with the Mikisew Cree First Nation to support their vision to conserve culturally important natural landscapes. Through a joint effort involving the Mikisew Cree, the Government of Alberta and industry leaders, Athabasca relinquished the largest industry acreage (~61% of expansion lands) to help establish the largest contiguous area of protected boreal forest in the world.
- Providing community investment funding to local Indigenous communities, allowing them to allocate funding where it is most needed. We have built meaningful relationships with local Indigenous communities and learned more about their priorities. These donations supported programs including a 'coats for kids' program, youth education (traditional and academic), mental health and poverty initiatives, Christmas functions for youth and elders and food hampers.
- Provided firewood for heating the homes of residents in the community of Conklin, AB, with delivery to over 30 homes.
- Athabasca sponsored Treaty Day celebrations.
- In recognition of Truth and Reconciliation Day, we made a corporate donation to the Truth and Reconciliation Week Fund that supports programming created by Indigenous storytellers for students in Grades 5-12 across Canada to share the history of Residential Schools and stories of truth and reconciliation in Canada's education curriculum.



*Delivering firewood to homes in the community of Conklin, Alberta.*

## COMMUNITY INVESTMENTS

Athabasca supports charities, outreach programs and volunteer initiatives in the areas where we operate. Over the past eight years, Athabasca has donated approximately \$600,000, including approximate \$100,000 in 2021. Some of the causes Athabasca supports include:

- Calgary:** Women in Need Society ("WINS"), Canadian Breast Cancer Foundation, Lionheart Foundation and Girl Power Hour 2021, Alberta Children's Hospital, and Modern Miracle Network.
- Fort McMurray and Wood Buffalo Municipality:** Movember, Edmonton Food Bank, Lac La Biche Regional Health Foundation, Canadian Mental Health Association ("CMHA") – Wood Buffalo Region, Fort McMurray Northern Lights Health Foundation, Red Cross Fort McMurray fire relief efforts, Local HERO Foundation, and the First Nation's Youth Council.
- Fox Creek:** Lions Club, Hospital Society, Fox Creek Outreach Program, Fox Creek Playschool, local Fox Creek Charity 646 Co (6 meals for 6 kids). Athabasca is pleased to additionally support the Fox Creek multiplex hockey rink through the installation of water bottle fill stations, which will reduce plastic bottle waste and provide access to safe and clean water in 2022.



Alberta Children's Hospital



Fox Creek Hospital Society



Women in Need Society ("WINS")

Athabasca would like to express its support for Ukraine during this challenging time. Through a combination of corporate and staff donations, we raised nearly \$20,000 in 2022 to help with emergency assistance to the people of Ukraine which includes critical medical supplies, food, water, clothing, shelter, hygiene items, heating fuel, and other urgent supplies to those in need.

## EDUCATION

We believe that a better tomorrow starts with students and aligned with this vision support several scholarship, endowments, and mentorship opportunities through local post-secondary institutions.

### On-Going Education and Post-Secondary Initiatives

- Athabasca Oil Corporation's Martti Ahtisaari Scholarship-**

annual scholarship to a 4th year student at the Haskayne School of Business. To date, we have awarded nearly \$60,000.

- Athabasca Oil Corporation Endowment-** This fund supports the Chair in Safety Engineering and Loss Management at the University of Alberta. The endowment generates ~\$130,000 a year.

- Work Practicums at Keyano College and Portage College-**

Our Leismer and Hangingstone operations sponsors 3rd and 4th Class Power Engineering work practicums for students resulting in funding of \$240,000 annually. 45 students have been enrolled in the program since 2010.

- Mentorship at SAIT-** Senior Engineers in our organization mentor SAIT students and provide real life engineering case studies for student's capstone projects.

- Mentorship at Canadian Society of Petroleum Geologists (CSPG)-** An Athabasca Geologist supported the Student

Industry Field Trip ("SIFT") event as a speaker.

## DIVERSITY & INCLUSION

We believe a diverse workplace creates multiple perspectives, which helps us see new points of view and results in stronger business decisions. Our corporate policies ensure that we have equitable, inclusive, and fair practices that have a goal of eliminating both conscious and unconscious bias. We have code of conduct and anti-discrimination policies and procedures that all employees acknowledge and sign annually. Discrimination of any kind is not tolerated at Athabasca.

The Board adopted a formal Board Diversity Policy in 2018 that includes provisions relating to the identification and nomination of women directors. We have had a female Board member since 2017, representing 14% of our board membership. Our executive team is currently composed of one woman, representing 25% of our executive officers. Corporately, female employees account for 21%, which includes 37% in the head office and 17% of management.

Athabasca supports gender equality through ongoing advocacy and celebrating women's achievements. In recognition of International Women's Day in 2022, we hosted an event to discuss how our company can help rise to #BreakTheBias, the IWD 2022 campaign theme. We were honoured to have Jessica Vandenberge, Associate Dean of Engineering Community and Culture at the University of Alberta, join us to discuss her journey as a professional Engineer, Indigenous Community Consultant, and Diversity and Inclusion Champion.



# GOVERNANCE



# GOVERNANCE

**At Athabasca, strong governance is core to our business. Our Board provides independent oversight and thoughtful reasoned guidance on our long-term strategy.**

By encouraging ethical and responsible decision making and supporting our commitment to corporate social responsibility, our Board is helping build a stronger, more responsible company.

## Structured to Drive Success

Our Board has formed three standing committees to best utilize our directors' depth of experience. These committees include the Compensation and Governance Committee, the Reserves Committee, and the Audit Committee.

Our Board has elected to have our ESG strategy and performance reviewed and considered by the Board as a whole. To keep the Board well informed, management regularly provides updates on goals and accomplishments around environmental considerations, social responsibility, ethics, and corporate citizenship. Our Board also takes a keen interest in our health and safety practices and performance. Management reviews HSE performance at each quarterly Board meeting and discusses current and emerging relevant issues.

Our Board includes directors that bring diverse and complementary skill sets, prior experience, tenure, and gender to ensure a wide range of perspectives that best strategically support Athabasca.

## 2021 Committees & Membership

- **Audit Committee:** Carlos Fierro (Chair, independent), Bryan Begley, and Tom Ebborn
- **Compensation and Governance Committee:** Bryan Begley (Chair, independent), Tom Ebborn, and Carlos Fierro
- **Reserves Committee:** Anne Downey (Chair, independent), Ron Eckhardt, and John Festival

# 2021 KEY BOARD STATISTICS

Number of Directors	7
Independent Directors	6 or 86%
Female Directors	1 or 14%
Governance Experience	7 or 100%
Health, Safety & Environment Experience	4 or 57%
Risk Management Experience	6 or 86%
Tenure	range 1-10 years, average of 5.6 years

Experience Director	Begley	Broen	Downey	Ebborn	Eckhardt	Festival	Fierro	Count
Accounting & Finance	●	●	●	●	●	●	●	7
Engineering/Reserves	●	●	●		●	●	●	5
Governance	●	●	●	●	●	●	●	7
Government/Regulatory/Legal		●	●	●	●	●	●	6
Health, Safety & Environment		●	●		●	●	●	4
Management/Leadership	●	●	●	●	●	●	●	7
Oil & Gas Upstream	●	●	●	●	●	●	●	7
Midstream/Trading		●		●	●	●	●	5
Oil Sands	●	●	●			●		4
Capital Markets	●	●		●		●	●	5
M&A	●	●		●	●	●	●	6
Risk Management		●	●	●	●	●	●	6
Count	8	12	9	9	10	12	9	

# GUIDING ETHICAL BEHAVIOUR

We have several policies in place to help govern our day-to day- operations. Our Code of Business Ethics and Conduct is central to business and guides the behaviour of all our directors, officers, employees, and consultants. To keep this important policy front of mind, our employees review and sign it annually.

## Our Code of Business Ethics and Conduct cover several important areas:

Discrimination and Harassment	All our people must be treated fairly, without discrimination by reason of race, national or ethnic origin, colour, religion, age, sex, sexual orientation, marital status or ability.
Health & Safety	All business operations must have proper attention to safety, health, and environment.
Gifts & Payment to Government Officials	Our people may not accept gifts, other than of nominal value, nor may they give gifts that could influence government officials. We strictly forbid any form of bribery or corruption.
Anti-Terrorism & Anti-Money Laundering	We strictly forbid money laundering and prohibit knowingly collecting or providing property to terrorists.
Conflicts of Interest	Our people are required to provide full disclosure of any potential conflict of Interest and may not be involved in any related decision-making process.
Insider Trading	Our people must not disclose any material information before its public disclosure and may not trade or provide tips while in possession of any material non-public information.

## ESG-related Polices

Our ESG-related policies guide our approach to ESG and are approved by the Board of Directors.

- **Code of Business Ethics and Conduct-** we require all of Athabasca's directors, officers, employees and consultants to adhere to our ethical standards.
- **Health & Safety Policy-** we believe that exemplary Health, Safety, and Environmental performance is critical in achieving our business goals and meeting the needs of our stakeholders. We are committed to providing a safe and healthy work environment for our employees and contractors.
- Our **Whistle Blower Policy** provides our people with a confidential and anonymous process to raise concerns or complaints regarding our accounting practices or processes, corporate fraud, or violations of our **Code of Business Ethics and Conduct** or **Trading and Blackout Policy**. Employees are encouraged to report concerns and complaints on these matters to their supervisor or the Human Resources Manager. For circumstances when employees are not comfortable with reporting concerns internally, employees are also provided with direct access to the Chair of the Audit Committee of the Board. All complaints received under the Whistle Blower Policy are investigated. To ensure employees are familiar with the policy and process for making complaints, our employees are required to sign the Whistle Blower Policy annually.
- Our **Respectful Workplace Policy** ensures our people are able to work in a healthy, discrimination-free work environment, where everyone is treated with dignity and respect. Athabasca is committed to providing equal opportunity for all employees regardless of their age, gender, sexual orientation, ability, or ethnicity. We do not tolerate any form of harassment and we are committed to protecting individuals from any potential retaliation from reporting an incident.



## REWARDING WHAT MATTERS

To help build an integrated health and safety culture and reward strong performance, we have developed HSE targets that make up 20% of our annual corporate performance scorecard. We measure ourselves against these targets on a regular basis and our short-term incentive program reflects a corporate performance element for all eligible employees, with a strong emphasis at the executive level.

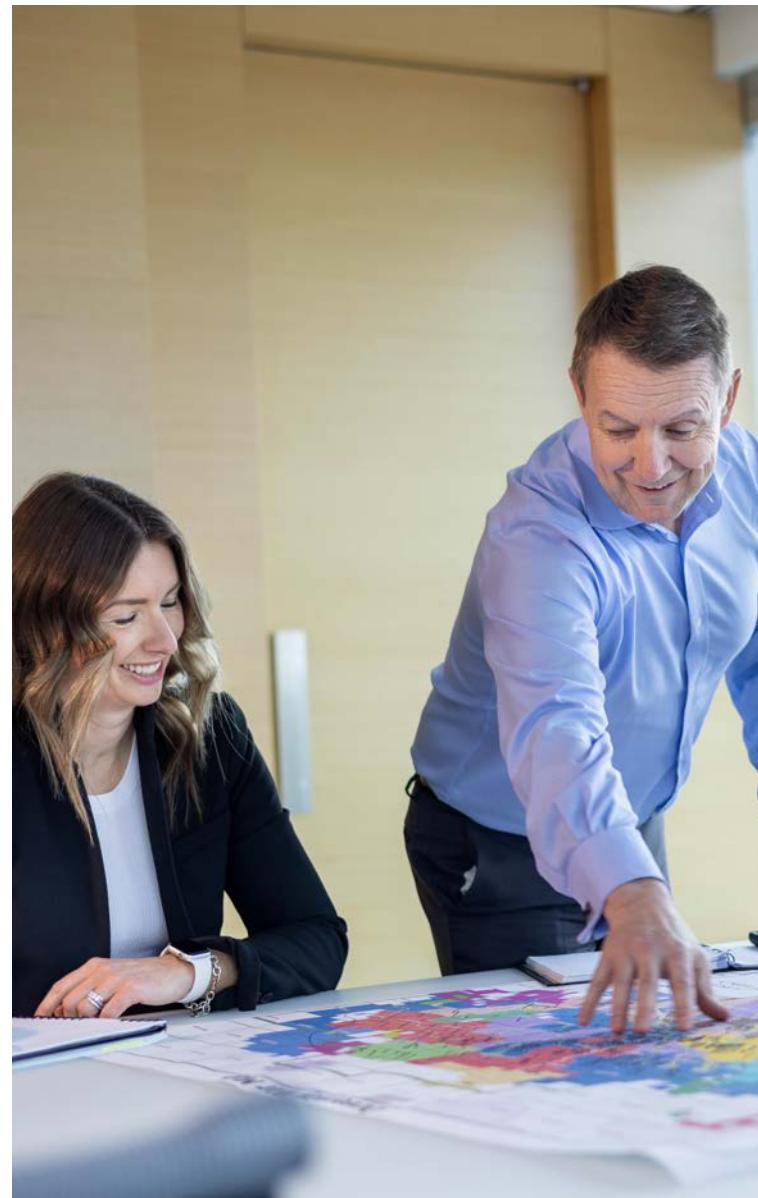
### Engaging with Stakeholders

We value the opinions of our stakeholders and encourage feedback on our performance and long-term strategy. We closely monitor our annual shareholder voting results and actively engage with shareholders on a regular basis. At our 2021 annual general meeting, all our directors received overwhelming support with 97% of votes for the election of our director nominees.

### Risk Management

Effective risk management is an important aspect of our business and is crucial to achieving our long-term goals. Risks, particularly ESG-related risks, are often longer-term in nature and we believe that considering them carefully as part of our strategic business and planning activities helps make informed decisions and enhances our resiliency. We also closely monitor emerging trends and changing regulations as a way to mitigate potential future risks.

The Board is responsible for oversight of risk management at Athabasca. ESG related risks include, but are not limited to, climate change, carbon pricing, royalty regimes, regulatory environment, access, health & safety, and technology including cyber security.



### Cyber Security

With the increase in frequency and complexity of cybersecurity threats around the globe, Athabasca is focused on managing cybersecurity risk. Concentrating on people, process, and technology, we have created a cybersecurity program to safeguard vulnerabilities and ensure the security of our organization. We conduct employee training on IT security topics such as email phishing and password protection. We utilize industry standard tools and processes related to remote access computing and run cybersecurity testing and simulations to improve our overall posture. In late 2021, we completed a 3rd party evaluation of our cybersecurity systems and continue to be alert to the threats around us.



# DATA & ADVISORIES



ECONOMIC NET	UNITS	2015	2016	2017	2018	2019	2020	2021
Consolidated Net Production	boe/d	7,560	11,981	35,421	39,203	36,196	32,483	34,618
Net Light Oil and Gas Production	boe/d	5,587	4,597	7,535	11,280	10,138	9,738	7,813
Net Thermal Oil Production	bbl/d	1,973	7,384	27,886	27,923	26,058	22,745	26,805
Production of oil	%	62	81	90	86	87	88	90
Production of natural gas	%	38	19	10	14	13	12	10
Production of synthetic oil	%	0	0	0	0	0	0	0
Production of synthetic gas	%	0	0	0	0	0	0	0
Thermal Oil Steam Oil Ratio	bbl steam/bbl oil	10.09	5.06	3.72	3.73	4.14	3.63	3.55
Number of offshore sites	total wells	0	0	0	0	0	0	0
Number of terrestrial sites	total wells	147	156	167	267	270	269	254
Common Shares Outstanding	millions	404	406	510	516	523	531	531
Market Capitalization	\$ millions	622.62	833.30	545.74	510.73	308.84	90.21	631.71
Petroleum, Natural Gas and Midstream Sales	\$ millions	\$84	\$176	\$784	\$810	\$837	\$465	\$1,016
Cash Flow From Operating Activities	\$ millions	(\$68)	(\$71)	\$62	\$84	\$93	(\$23)	\$194
Adjusted Funds Flow <sup>(1)</sup>	\$ millions	(\$47)	(\$102)	\$102	\$6	\$155	(\$19)	\$184
Capital Expenditures	\$ millions	\$292	\$128	\$262	\$276	\$199	\$112	\$92
Annual Capital Investments <sup>(1)</sup>	\$ millions	\$292	\$122	\$213	\$194	\$140	\$89	\$92
Operating Expenses	\$ millions	\$62	\$94	\$176	\$176	\$174	\$137	\$181
Total Assets	\$ millions	\$3,462	\$2,258	\$2,324	\$1,826	\$2,093	\$1,426	\$1,742
Royalties	\$ millions	\$1	\$2	\$12	\$19	\$16	\$6	\$38

GROSS REPORTED OPERATED									
Gross Production Through Operated Facilities		boe/d	11,490	27,373	54,470	61,725	53,777	50,998	48,493
SPILLS		UNITS	2015	2016	2017	2018	2019	2020	2021
Reportable Spills	count		0	4	2	3	0	0	0
Total Volume of Reportable Spills	m3		0	103	7	31	0	0	0
Volume of spills in the Arctic	bbl		0	0	0	0	0	0	0
Volume of spills near shorelines with ESI rankings 8-10	bbl		0	0	0	0	0	0	0
HEALTH & SAFETY		UNITS	2015	2016	2017	2018	2019	2020	2021
Lost-Time Injury Frequency - Employee & Contractor	cases per 200,000 hours		0.00	0.11	0.11	0.00	0.00	0.00	0.18
Lost-Time Injury Frequency - Employee	cases per 200,000 hours		0.00	0.00	0.00	0.00	0.00	0.00	0.70
Lost-Time Injury Frequency - Contractor	cases per 200,000 hours		0.00	0.11	0.11	0.00	0.00	0.00	0.11
Recordable Injury Frequency - Employee & Contractor	cases per 200,000 hours		0.42	0.47	0.24	0.36	0.00	0.09	0.64
Recordable Injury Frequency - Employee	cases per 200,000 hours		0.00	0.00	0.00	0.00	0.00	0.00	2.11
Recordable Injury Frequency - Contractor	cases per 200,000 hours		0.52	0.56	0.28	0.44	0.00	0.11	0.11
Fatalities - Employee and Contractor	cases per 200,000 hours		0	0	0	0	0	0	0
Employee Fatalities	count		0	0	0	0	0	0	0
Contractor Fatalities	count		0	0	0	0	0	0	0
WORKFORCE		UNITS	2015	2016	2017	2018	2019	2020	2021
Number of Employees Total	count		162	146	235	197	173	140	146
Women Total	%		31%	29%	25%	21%	21%	21%	21%
Women in Management	%		26%	31%	26%	23%	23%	16%	17%
Women in Senior Management	%		29%	25%	29%	50%	50%	25%	25%
Women on Board	%		0%	0%	17%	14%	14%	14%	14%
Employee Turnover Rate	%		11%	6%	8%	6%	14%	6%	6%
Ratio of Permanent to Temporary Employee Contracts	%		98%	95%	97%	98%	95%	97%	99%

COMMUNITY INVESTMENT	UNITS	2015	2016	2017	2018	2019	2020	2021
Contribution to Charitable, Non-Charitable, Community Groups	\$	90,705	94,056	67,705	84,768	79,530	74,030	98,530
INDIGENOUS ENGAGEMENT	UNITS	2015	2016	2017	2018	2019	2020	2021
Indigenous Business Spend	\$ millions	10.2	3.3	10.7	12.8	17.7	11.7	14.5
GREENHOUSE GAS EMISSIONS	UNITS	2015	2016	2017	2018	2019	2020	2021
Direct GHG Emissions (Scope 1)	tonnes CO2e	248,017	384,787	920,874	955,243	956,791	801,579	868,862
1) Scope 1 by GHG Type - CO2	tonnes CO2	229,280	363,028	885,177	926,799	927,255	765,315	831,425
2) Scope 1 by GHG Type - CH4	tonnes CH4	747	843	676	1,053	1,098	1,518	1,371
3) Scope 1 by GHG Type - N2O	tonnes N2O	1.42	2.32	63.06	7.07	6.97	5.77	10.63
Emissions covered under an emissions-limiting regulation		100	100	100	100	100	100	100
Emissions from methane	%	-	5.5	1.8	2.8	2.9	4.7	3.9
Scope 1 emissions from combustion	%	-	98.5	99.6	98.9	98.8	97.4	97.4
Scope 1 emissions from flared hydrocarbons	%	-	0.0	0.2	0.5	0.5	0.9	0.5
Scope 1 emissions from process emissions	%	-	0	0	0	0	0	0
Scope 1 emissions from directly vented releases	%	-	1.0	0.0	0.0	0.0	1.4	1.7
Scope 1 emissions from fugitive emissions	%	-	0.6	0.2	0.6	0.7	0.3	0.4
GHG Emission Intensity (Scope 1)	tonnes CO2e/boe	0.059	0.038	0.046	0.042	0.049	0.043	0.049
Indirect GHG Emissions (Scope 2)	tonnes CO2e	23,553	41,367	75,120	72,939	73,250	60,203	71,311
GHG Emissions Intensity (Scope 1 + Scope 2)	tonnes CO2e/boe	0.065	0.043	0.050	0.046	0.052	0.046	0.053

AIR EMISSIONS	UNITS	2015	2016	2017	2018	2019	2020	2021
NOx Emissions	tonnes	385	558	703	988	954	902	762
NOx Emissions Intensity of Oil and Gas Production	kg/boe	0.0918	0.0557	0.0354	0.0438	0.0486	0.0483	0.0430
SO2 Emissions	tonnes	2.6	6.1	397.9	372.3	465.9	452.9	596.4
SO2 Emissions Intensity of Oil and Gas Production	kg/boe	0.001	0.001	0.020	0.017	0.024	0.024	0.034
VOC Emissions	tonnes	54.6	52.2	122.3	141.6	155.5	151.8	136.0
VOC Emissions Intensity of Oil and Gas Production	kg/boe	0.0130	0.0052	0.0061	0.0063	0.0079	0.0081	0.0077
Flared Gas Volume	e3m3	2,395	2,000	3,151	1,346	1,127	3,020	1,693
Vented Gas Volume	e3m3	1	0	8	18	17	875	987
WATER USE	UNITS	2015	2016	2017	2018	2019	2020	2021
Total Water Withdrawal	thousand m3	1129	851	1054	645	445	390	346
Water Withdrawal by Type:								
1) Total Freshwater Withdrawal	thousand m3	1129	851	1054	645	445	390	346
2) Total Other Water Withdrawal	thousand m3	0	0	0	0	0	0	0
Total Water Consumption	thousand m3	824	667	829	645	430	552	293
Total Water Consumption from areas with high stress	thousand m3	0	0	0	0	0	0	0
Produced water or flowback recycled	%	61%	84%	87%	89%	93%	86%	86%
Produced water or flowback injected (deep well injection)	%	39%	16%	13%	11%	7%	14%	14%
Produced water/flowback discharged	%	0%	0%	0%	0%	0%	0%	0%
Hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used	%	100	100	100	100	100	100	100
Hydraulic Fracturing sites where ground or surface water quality deteriorated compared to a baseline	%	0	0	0	0	0	0	0

<b>NET REPORTED OPERATED</b>									
<b>Net Production Through Operated and non-Operated Facilities</b>	<b>boe/d</b>	<b>7,560</b>	<b>11,981</b>	<b>35,421</b>	<b>39,203</b>	<b>36,196</b>	<b>32,483</b>	<b>34,618</b>	
<b>GREENHOUSE GAS EMISSIONS</b>	<b>UNITS</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	
Direct GHG Emissions (Scope 1)	tonnes CO2e	223,528	350,259	863,679	868,034	882,533	720,584	803,751	
1) Scope 1 by GHG Type - CO2	tonnes CO2	210,018	336,170	848,762	855,766	867,170	702,003	783,136	
2) Scope 1 by GHG Type - CH4	tonnes CH4	533	538	300	425	547	828	745	
3) Scope 1 by GHG Type - N2O	tonnes N2O	1.31	2.17	24.87	5.53	5.66	4.47	6.67	
Emissions covered under an emissions-limiting regulation	%	100	100	100	100	100	100	100	
Emissions from methane	%	6.0	3.8	0.9	1.2	1.5	2.9	2.3	
Scope 1 emissions from combustion	%	22.1	98.3	99.5	99.2	99.0	98.2	98.2	
Scope 1 emissions from flared hydrocarbons	%	0.3	0.0	0.2	0.3	0.3	0.5	0.3	
Scope 1 emissions from process emissions	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Scope 1 emissions from directly vented releases	%	0.0	1.1	0.0	0.0	0.0	0.9	1.1	
Scope 1 emissions from fugitive emissions	%	0.0	0.6	0.2	0.5	0.6	0.3	0.4	
GHG Emission Intensity (Scope 1)	tonnes CO2e/boe	0.081	0.080	0.067	0.061	0.067	0.061	0.064	
Indirect GHG Emissions (Scope 2)	tonnes CO2e	22,270	38,257	69,161	67,057	68,304	55,245	67,523	
GHG Emissions Intensity (Scope 1 + Scope 2)	tonnes CO2e/boe	0.089	0.089	0.072	0.065	0.072	0.065	0.069	

AIR EMISSIONS	UNITS	2015	2016	2017	2018	2019	2020	2021
NOx Emissions	tonnes	292	385	554	596	615	560	506
NOx Emissions Intensity of Oil and Gas Production	kg/boe	0.1057	0.0879	0.0429	0.0417	0.0465	0.0471	0.0400
SO2 Emissions	tonnes	2.6	6.1	397.9	372.3	465.9	447.3	595.2
SO2 Emissions Intensity of Oil and Gas Production	kg/boe	0.001	0.001	0.031	0.026	0.035	0.038	0.047
VOC Emissions	tonnes	48.1	43.1	75.0	83.8	107.0	93.7	86.7
VOC Emissions Intensity of Oil and Gas Production	kg/boe	0.0174	0.0098	0.0058	0.0059	0.0081	0.0079	0.0069
Flared Gas Volume	e3m3	2,171	1,408	1,626	598	486	1,561	1,004
Vented Gas Volume	e3m3	1.1	0.0	8.3	18.1	16.6	534	592
WATER USE	UNITS	2015	2016	2017	2018	2019	2020	2021
Total Water Withdrawal	thousand m3	914	567	860	555	417	389	324
Water Withdrawal by Type:								
1) Total Freshwater Withdrawal	thousand m3	914	567	860	555	417	389	324
2) Total Other Water Withdrawal	thousand m3	0	0	0	0	0	0	0
Total Water Consumption	thousand m3	824	454	703	555	407	503	293
Total Water Consumption from areas with high stress	thousand m3	0	0	0	0	0	0	0
Produced water/flowback recycled	%	61%	82%	87%	88%	93%	86%	86%
Produced water /flowback injected (deep well injection)	%	39%	18%	13%	12%	7%	14%	14%
Produced water/flowback discharged	%	0	0	0	0	0	0	0
Hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used	%	100	100	100	100	100	100	100
Hydraulic Fracturing sites where ground or surface water quality deteriorated compared to a baseline	%	0	0	0	0	0	0	0

**Legend**

Emissions = Gross

Spills = Gross

TRIF = Combine Employee and Contractor

**Footnotes**

1. Refer within this ESG report to the "Oil and Gas Information" Advisories for additional information on production disclosures and to the "Non-GAAP Measures" Advisories for additional information on Adjusted Funds Flow and Annual Capital Investments. Refer to the Company's profile on [www.sedar.com](http://www.sedar.com) for the MD&A and Audited Annual Financial Statements for additional information on the Petroleum, Natural Gas and Midstream Sales, Operating Expenses, Total Assets and Royalties.
2. 2017 Leismer production numbers represents 11 out of 12 months - Emissions numbers are annual numbers multiplied by 11/12.
3. Hangingstone methane volumes are not included in 2015 & 2016 due to using estimations for Hangingstone. 2017 onwards using measured data.
4. Light Oil methane volumes do not include vented methane volumes from 2015-2019 (reported as fuel). 2020 is the first year vented emissions are tracked separately under D60
5. Final 2021 NPRI and GHG verifications not completed until the end of June for Thermal emissions. (+/- 1%)
6. Light Oil emissions and water do not include Placid for 2015 & 2016 - Placid Facility online in 2017.
7. Spills reported as per (Spills Accountability Standards Board (SASB): Code EM-EP-160a.2)
8. Does not include flare volumes for wells during testing as the associated flare volumes are not required to be included in NPRI and GHG calculations (Light Oil)
9. Water volumes withdrawn represent water volumes that may have been used in projects or stored in reservoirs for future use. (Light Oil)
10. Gross Reported Operated Production: Gross production through all Athabasca operated facilities (Includes 3rd party volumes).
11. Net Production: Athabasca's Net production through both operated and non-operated facilities.
12. Total water consumption is the combined volume of water for Light Oil and Thermal facilities including drilling and completion activities.
13. Water withdrawal scale was incorrectly shown in m<sup>3</sup> on 2020 report and has been corrected on to megaliters 2021 report
14. 2020 air emission data has been updated for Thermal based on TIER GHG verified data and NPRI reporting
15. VOC emission intensity (gross) was incorrectly calculated in 2020 report and has been updated
16. 2020 Petroleum, Natural Gas and Midstream Sales updated based on finalized 2020 financials
17. Emission reporting for Light Oil included GHG and NPRI data reported to ECCC. Thermal emissions based on TIER calculations and NPRI.
18. Net Reported Emissions: Athabasca's Net reported emissions calculated from taking Athabasca portion of Gross operated emissions divided by net production
19. Indigenous Business Spend: 2019 & 2020 values updated to include expenditures with Indigenous vendor previously not captured
20. Terrestrial Sites: Includes the total number of Gross wells reported in our Annual Information Form.

## GLOSSARY: ABBREVIATIONS AND ACRONYMS

**\$MM** Millions of dollars

**ABC** Area Based Closure

**AFF** Adjusted funds flow

**Bbl** Barrel

**BOE** Barrel of oil equivalency (6 Mcf : 1 bbl)

**CAPP** Canadian Association of Petroleum Producers

**CCS** Carbon Capture & Storage

**CH4** Methane

**CHOA** Canadian Heavy Oil Association

**CO** Carbon monoxide

**CO2** Carbon dioxide

**CO2e** Carbon dioxide equivalent

**EPAC** Explorers and Producers Association of Canada

**ESG** Environment, Social and Governance

**FCD** Flow Control Device

**GHG** Greenhouse gas

**GRI** Global Reporting Initiative

**HSE** Health, Safety & Environment

**LMR** Liability Management Rating

**M3** Metres cubed

**MD&A** Management's Discussion and Analysis

**MMBOE** Million barrels of oil equivalent

**NCG** Non-condensable gas co-injection

**NPRI** National Pollutant Release Inventory

**N2O** Nitrous oxide

**NOx** Nitrogen oxide

**PM10** Particulate matter with a radius greater than or equal to 10 micrometers

**RICC** Regional Industry Caribou Collaboration

**SASB** Sustainability Accounting Standards Board

**SAGD** Steam assisted gravity drainage

**SOR** Steam oil ratio

**SOx** Sulphur oxide

**SO2** Sulphur dioxide

**SRP** Site Rehabilitation Program

**TCFD** Task Force on Climate-related Financial Disclosures

**TRL** Technology Readiness Level

**UNSDG** United Nations Sustainable Development Goals

**TRIF** Total recordable injury frequency

**WBEA** Wood Buffalo Environmental Association

# GRI INDEX

<b>GRI Indicator</b>	<b>Activity Metrics</b>	<b>Reference</b>
<b>Organizational Profile</b>		
102-1	Name of the organization	2021 ESG Report, p. 2
102-2	Primary brands, products, and services	2021 ESG Report, p. 2
102-3	Location of Headquarters	2021 ESG Report, p. 2
102-4	Location of Operations	2021 ESG Report, p. 2, 29
102-5	Ownership and legal form	2021 Annual Information Form, p. 8
102-6	Markets Served	2021 Annual Information Form, p. 8
102-7	Scale of the Organization	2021 ESG Report, p. 2, 30; 2021 Annual Information Form, p. 8, 15
102-8	Employee Numbers	2021 ESG Report, p. 23, 30; 2021 Annual Information Form, p. 15
102-10	Significant changes to the organization and its supply chain	No Significant Changes
102-13	Membership of associations	2021 ESG Report, p. 20
<b>Strategy</b>		
102-14	Statement from senior decision-maker	2021 ESG Report, p. 20
102-15	Key impacts, risks, and opportunities	2021 ESG Report, p. 27; 2021 Annual Information Form, p. 4-6, 49-64
<b>Ethics and Integrity</b>		
102-16	Values, principles, standards, and norms of behavior	2021 ESG Report, p. 2
102-17	Mechanisms for advice and concerns about ethics	2021 ESG Report, p. 26

# GRI INDEX

<b>GRI Indicator</b>	<b>Activity Metrics</b>	<b>Reference</b>
<b>Governance</b>		
102-18	Governance Structure	2021 ESG Report, p. 25; May2021 Information Circular p. 13-20
102-19	Delegating Authority	2021 ESG Report, p. 2, 5, 25
102-20	Executive-level responsibility for economic, environmental, and social topics	2021 ESG Report, p. 2, 5, 25-26
102-21	Consulting stakeholders on economic, environmental, and social topics	2021 ESG Report, p. 19, 25-26
102-22	Composition of the highest governance body and its committees	2021 ESG Report, p. 25; May2021 Information Circular p. 13-20, 24-26
102-23	Chair of the highest governance body	2021 ESG Report, p. 25; May2021 Information Circular p. 13, 24-25
102-24	Nominating and selecting the highest governance body	May 2021 Information Circular p. 24-26
102-25	Conflicts of interest	May 2021 Information Circular p. 25
102-26	Role of highest governance body in setting purpose, values, and strategy	May 2021 Information Circular p. 24-25
102-27	Collective knowledge of highest governance body	2021 ESG Report, p. 25; May2021 Information Circular p. 20
102-28	Evaluating the highest governance body's performance	2021 ESG Report, p. 1-2, 4-5, 25; May2021 Information Circular p. D-3
102-29	Identifying and managing economic, environmental, and social impacts	2021 ESG Report, p. 1-2, 4-5, 25; May2021 Information Circular p. D-3
102-32	Highest governance body's role in sustainability reporting	2021 ESG Report, p. 1-2, 4-5, 25; May2021 Information Circular p. D-3
102-33	Communicating critical concerns	May 2021 Information Circular p. 25
102-35	Remuneration policies	May 2021 Information Circular p. 21-23, 27-41
102-36	Process for determining remuneration	May 2021 Information Circular p. 21-23, 27-41
<b>Stakeholder Engagement</b>		
102-40	List of stakeholder groups	2021 ESG Report, p. 19
102-42	Identifying and selecting stakeholders	2021 ESG Report, p. 19
102-43	Approach to Stakeholder Engagement	2021 ESG Report, p. 19

# GRI INDEX

<b>GRI Indicator</b>	<b>Activity Metrics</b>	<b>Reference</b>
<b>Reporting Practice</b>		
102-46	Defining report content and topic Boundaries	2021 ESG Report, p. 3, 5
102-47	List of material topics	2021 ESG Report, p. 3, 5
102-48	Restatements of information	2021 ESG Report, p. 3, 5
102-49	Change in reporting	2021 ESG Report, p. 35
102-50	Reporting period	2021 ESG Report, Coverpage, p. 29
102-51	Date of most recent report	2020 (published May 2021)
102-52	Reporting cycle	Annually
102-53	Contact point for questions regarding the report	Matt Taylor, CFO
102-54	Claims of reporting in accordance with the GRI Standards	References GRI Standards
102-55	GRI Content Index	2021 ESG Report, p. 36
102-56	External Assurance	Report has not been externally assured
<b>Business Practices</b>		
201-1	Direct economic value generated and distributed	2021 ESG Report, p. 2, 21-23, 29, 31
204-1	Proportion of spending on local suppliers	2021 ESG Report, p. 22, 31
205-2	Communication and training about anti-corruption policies and procedures	2021 ESG Report, p. 26

# GRI INDEX

<b>GRI Indicator</b>	<b>Activity Metrics</b>	<b>Reference</b>
<b>Environment</b>		
303-1	Interactions with water as a shared resource	2021 ESG Report, p. 14, 32
303-3	Water withdrawal	2021 ESG Report, p. 14, 29, 32
303-5	Water Consumption	2021 ESG Report, p. 14, 32
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	2021 ESG Report, p. 12-16
304-2	Significant impacts of activities, products, and services on biodiversity	2021 ESG Report, p. 12-16
305-1	Direct (Scope 1) GHG emissions	2021 ESG Report, p. 7, 31
305-2	Energy indirect (Scope 2) GHG emissions	2021 ESG Report, p. 31
305-4	GHG emissions intensity	2021 ESG Report, p. 1-4, 7-8, 10, 31
305-5	Reduction of GHG emissions	2021 ESG Report, p. 7-10
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	2021 ESG Report, p. 13, 31
306-2	Waste by type and disposal method	2021 ESG Report, p. 1, 3, 17, 30
306-3	Significant Spills, Number, and Volume	2021 ESG Report, p. 1, 3, 17, 30
307-1	Non-compliance with environmental laws and regulations	No significant fines or non-monetary compliance with environmental laws and/or regulations
<b>Social</b>		
403-9	Work-related injuries	2021 ESG Report, p. 1, 3, 4, 17, 30
405-1	Diversity of governance bodies and employees	2021 ESG Report, p. 23, 30

# SASB INDEX

<b>SASB Code</b>	<b>Description</b>	<b>Units</b>	<b>Reference</b>
<b>Activity Metrics</b>			
EM-EP-000.A	Total production (operated)	boe/d	2021 ESG Report, p. 29
EM-EP-000.A	Production of oil	%	2021 ESG Report, p. 29
EM-EP-000.A	Production of natural gas	%	2021 ESG Report, p. 29
EM-EP-000.A	Production of synthetic oil	%	2021 ESG Report, p. 29
EM-EP-000.A	Production of synthetic gas	%	2021 ESG Report, p. 29
EM-EP-000.B	Number of offshore sites	total wells	2021 ESG Report, p. 29
EM-EP-000.C	Number of terrestrial sites	total wells	2021 ESG Report, p. 29
<b>Greenhouse Gas Emissions</b>			
EM-EP-110a.1	Gross global Scope 1 emissions	tonnes Co2e	2021 ESG Report, p. 31
EM-EP-110a.1	Emissions from methane	%	2021 AIF pg 11-14, 22-23
EM-EP-110a.1	Percentage of emissions covered under an emissions-limiting regulation	%	2021 ESG Report, p. 7, 31
EM-EP-110a.2	Scope 1 emissions from combustion	%	2021 ESG Report, p. 31
EM-EP-110a.2	Scope 1 emissions from flared hydrocarbons	%	2021 ESG Report, p. 31
EM-EP-110a.2	Scope 1 emissions from process emissions	%	2021 ESG Report, p. 31
EM-EP-110a.2	Scope 1 emissions from directly vented releases	%	2021 ESG Report, p. 31
EM-EP-110a.2	Scope 1 emissions from fugitive emissions	%	2021 ESG Report, p. 31
EM-EP-110a.3	Descriptions of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reductions targets, and an analysis of performance against those targets	Description	2021 ESG Report, p. 1-10
<b>Air Quality</b>			
EM-EP-120a.1	NOx	tonnes	2021 ESG Report, p. 13, 32
EM-EP-120a.1	SOx	tonnes	2021 ESG Report, p. 13, 32
EM-EP-120a.1	Volatile Organic Compounds (VOC)	tonnes	2021 ESG Report, p. 13, 32
EM-EP-120a.1	Particulate Matter (PM10)	tonnes	2021 ESG Report, p. 13, 32

# SASB INDEX

<b>SASB Code</b>	<b>Description</b>	<b>Units</b>	<b>Reference</b>
<b>Water and Wastewater Management</b>			
EM-EP-140a.1	Total fresh water withdrawn	m3	2021 ESG Report, p. 14, 32
EM-EP-140a.1	Total freshwater consumed	m3	2021 ESG Report, p. 14, 32
EM-EP-140a.1	Percentage water withdrawn in regions with High or Extremely High Baseline Water Stress	%	2021 ESG Report, p. 14, 32
<b>Biodiversity Impacts</b>			
EM-EP-160a.1	Description of environmental management policies and practices for active sites	Description	2021 ESG Report, p. 12-16
EM-EP-160a.2	Number of hydrocarbon spills	bbl	2021 ESG Report, p. 1, 3, 17, 30
EM-EP-160a.2	Volume of hydrocarbon spills	bbl	2021 ESG Report, p. 30
EM-EP-160a.2	Volume of hydrocarbon recovered	bbl	2021 ESG Report, p. 30
EM-EP-160a.2	Volume of spills in the Arctic	bbl	2021 ESG Report, p. 30
EM-EP-160a.2	Volume of spills near shorelines with ESI rankings 8-10	bbl	2021 ESG Report, p. 30
<b>Security, Human Rights, and Rights of Indigenous Peoples</b>			
EM-EP-210a.1	Proved reserves in or near areas of conflict	%	0
EM-EP-210a.1	Probable reserves in or near areas of conflict	%	0
EM-EP-210a.2	Proved reserves in or near indigenous land	%	100
EM-EP-210a.2	Probable reserves in or near indigenous land	%	100
EM-EP-210a.3	Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	%	2021 ESG Report, p. 19-22
<b>Community Relations</b>			
EM-EP-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	Discussion	2021 ESG Report, p. 19
EM-EP-210b.2	Number and duration of non-technical delays	Days	0

# SASB INDEX

<b>SASB Code</b>	<b>Description</b>	<b>Units</b>	<b>Reference</b>
<b>Health, Safety, and Emergency Management</b>			
EM-EP-320a.1	Total Recordable Incident Rate (TRIR) for work-related injuries and illnesses for employees and contractors (Equivalent to Total Recordable Injury Frequency or TRIF)	cases per 200,000 work hours	2021 ESG Report, p. 1, 3, 17, 30
EM-EP-320a.1	Fatalities	Count	2021 ESG Report, p. 30
EM-EP-320a.2	Discussion of management systems used to integrate a culture of safety and emergency preparedness throughout the value chain and throughout the exploration and production lifecycle	Discussion	2021 ESG Report, p. 1, 4, 5, 17, 25-27
<b>Reserves Valuation and Capital Expenditures Business Ethics and Payments Transparency</b>			
EM-EP-510a.1.	(1) Proved and (2) probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	%	0
EM-EP-510a.2.	Description of the management system for prevention of corruption and bribery throughout the value chain	Description	2021 ESG Report, p. 26
<b>Management of the Legal and Regulatory Environment</b>			
EM-EP-530a.1.	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Discussion	2021 ESG Report, p. 20-25

# TCFD INDEX

	<b>Recommended Disclosures</b>	<b>Reference</b>
<b>Governance</b>		
Disclose the organization's governance around climate-related risks and opportunities	<p>a) Describe the board's oversight of climate-related risk and opportunities.</p> <p>b) Describe management's role in assessing and managing climate-related risks and opportunities.</p>	<p>2021 ESG Report, p. 25-27; 2021 Management Information Circular - Appendix D-3</p> <p>2021 ESG Report, p. 1-5, 25-27</p>
<b>Strategy</b>		
Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	<p>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</p> <p>b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning</p>	<p>2021 ESG Report, p. 25-27; 2021 Annual Information Form, p. 5, 14, 45,47-48, 52, 54-56, 62, 64</p> <p>2021 ESG Report, p. 25-27; 2021 Annual Information Form, p. 5, 14, 45,47-48, 52, 54-56, 62, 64</p>
<b>Risk Management</b>		
Disclose how the organization identifies, assesses, and manages climate-related risks.	<p>a) Describe the organization's processes for identifying and assessing climate related risks.</p> <p>b) Describe the organization's processes for managing climate related risks.</p> <p>c) Describe how processes for identifying, assessing, and managing climate related risks are integrated into the organization's overall risk management.</p>	<p>2021 ESG Report, p. 7-10</p> <p>2021 ESG Report, p. 25-27; 2021 Annual Information Form, p. 52, 54</p> <p>2021 ESG Report, p. 25-27</p>
<b>Metrics and Targets</b>		
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material	<p>a) Disclose the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process.</p> <p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</p> <p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets</p>	<p>2021 ESG Report, p. 7-10, 29-35</p> <p>2021 ESG Report, p. 7, 31</p> <p>2021 ESG Report, p. 4, 7-10</p>

### **Forward-Looking Information**

This ESG report contains forward-looking information that involves various risks, uncertainties and other factors. All information other than statements of historical fact is forward-looking information. The use of any of the words "plan," "continue," "may," "will," "want," "target," "believe," "potential," "goal" and similar expressions are intended to identify forward-looking information. The forward-looking information is not historical fact, but rather is based on the Company's current plans, objectives, goals, strategies, estimates, assumptions and projections about the Company's industry, business and future financial results. This information involves known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking information. No assurance can be given that these expectations will prove to be correct and such forward-looking information included in this ESG report should not be unduly relied upon. This information speaks only as of the date of this ESG report. In particular, and without limiting the foregoing, this report contains forward looking statements with respect to our commitment to the continued reduction of our environmental footprint and our goal of achieving a 30% reduction in GHG emissions intensity by 2025; investments in and use of new technology; the reserve and resource potential of the Company's assets; production and design capacity of the Company's assets; plans to strengthen stakeholder and community relationships; plans to further incorporate feedback from stakeholders and adapt to evolving reporting requirements; the continuation of health and safety programs; the continuation of our collaboration with government and industry partners; our participation in government, industry and community programs; the continuation and effect of our environmental monitoring, impact minimization and restoration and reclamation strategies; engagement with indigenous and local communities; and future allocation of capital.

In addition, information and statements in this ESG report relating to "Reserves" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions, that the reserves described exist in the quantities predicted or estimated, and that the reserves described can be profitably produced in the future. Certain assumptions related to the Company's Reserves are contained in the report of McDaniel & Associates Consultants Ltd. ("McDaniel") evaluating Athabasca's Proved Reserves, Probable Reserves and Contingent Resources as at December 31, 2021 (which is respectively referred to herein as the "McDaniel Report").

With respect to forward-looking information contained in this ESG report, assumptions have been made regarding, among other things: commodity prices; the regulatory framework governing royalties, taxes and environmental matters in the jurisdictions in which the Company conducts and will conduct business and the effects that such regulatory framework will have on the Company, including on the Company's financial condition and results of operations; the Company's financial and operational flexibility; the Company's financial sustainability; the Company's ability to obtain qualified staff and equipment in a timely and cost-efficient manner; the applicability of technologies for the recovery and production of the Company's reserves and resources; future capital expenditures to be made by the Company; future sources of funding for the Company's capital programs; the Company's future debt levels; future production levels; the Company's ability to obtain financing and/or enter into joint venture arrangements, on acceptable terms; operating costs; compliance of counterparties with the terms of contractual arrangements; impact of global competition; the impact of the COVID-19 pandemic and geopolitical conflicts; collection risk of outstanding accounts receivable from third parties; geological and engineering estimates in respect of the Company's reserves and resources; recoverability of reserves and resources; the geography of the areas in which the Company is conducting exploration and development activities; the quality of its assets; and estimated abandonment and reclamation costs.

Actual results could differ materially from those anticipated in this forward-looking information as a result of the risk factors set forth in the Company's Annual Information Form ("AIF") dated March 2, 2022 and Management's Discussion & Analysis for the year ended December 31, 2021 and dated March 2, 2022 ("MD&A"), each available on SEDAR at [www.sedar.com](http://www.sedar.com), including, but not limited to: weakness in the oil and gas industry; exploration, development and production risks; prices, markets and marketing; market conditions; climate change and carbon pricing risk; statutes and regulations regarding the environment; regulatory environment and changes in applicable law; gathering and processing facilities, pipeline systems and rail; reputation and public perception of the oil and gas sector; environment, social and governance goals; political uncertainty; continued impact of the COVID-19 pandemic; state of capital markets; ability to finance capital requirements; access to capital markets and insurance; abandonment and reclamation costs; changing demand for oil and natural gas products; anticipated benefits of acquisitions and dispositions; royalty regimes; foreign exchange rates and interest rates;

reserves; hedging; operational dependence; operating costs; project risks; supply chain disruption; financial assurances; diluent supply; third party credit risk; indigenous claims; reliance on key personnel and operators; income tax; cybersecurity; advanced technologies; hydraulic fracturing; liability management; seasonality and weather conditions; unexpected events; internal controls; limitations and insurance; litigation; natural gas overlying bitumen resources; competition; chain of title and expiration of licenses and leases; breaches of confidentiality; new industry related activities or new geographical areas; and risks related to our debt and securities.

The risks and uncertainties referred to above are described in more detail in Athabasca's most recent AIF, which is available on the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com). Readers are cautioned that the foregoing list of risk factors should not be construed as exhaustive. The forward-looking information included in this ESG report is expressly qualified by this cautionary statement and is made as of the date of this ESG report. The Company does not undertake any obligation to publicly update or revise any forward-looking information except as required by applicable securities laws.

**Reserves Information**

The McDaniel Report was prepared using the assumptions and methodology guidelines outlined in the COGE Handbook and in accordance with National Instrument 51-101 Standards of Disclosure for Oil and Gas Activities, effective December 31, 2021. There are numerous uncertainties inherent in estimating quantities of bitumen, light crude oil and medium crude oil, tight oil, conventional natural gas, shale gas and natural gas liquids reserves, and the future cash flows attributed to such reserves. The reserve information set forth above are estimates only. In general, estimates of economically recoverable reserves are based upon a number of variable factors and assumptions, such as historical production from the properties, production rates, ultimate reserve recovery, timing and amount of capital expenditures, marketability of oil and natural gas, royalty rates, the assumed effects of regulation by governmental agencies and future operating costs, all of which may vary materially. For those reasons, estimates of the economically recoverable reserves attributable to any particular group of properties, classification of such reserves based on risk of recovery prepared by different engineers, or by the same engineers at different times, may vary. The Company's actual production, revenues, taxes and development and operating expenditures with respect to its reserves will vary from estimates thereof and such variations could be material. Reserves figures described herein have been rounded to the nearest MMbbl or MMboe. For additional information regarding the consolidated reserves and information concerning the resources of the Company as evaluated by McDaniel in the McDaniel Report, please refer to the Company's AIF.

The 700 Duvernay drilling locations referenced include: 7 proved undeveloped locations and 78 probable undeveloped locations for a total of 85 booked locations with the balance being unbooked locations. The 150 Montney drilling locations referenced include: 39 proved undeveloped locations and 59 probable undeveloped locations for a total of 98 booked locations with the balance being unbooked locations. Proved undeveloped locations and probable undeveloped locations are booked and derived from the Company's most recent independent reserves evaluation as prepared by McDaniel as of December 31, 2021 and account for drilling locations that have associated proved and/or probable reserves, as applicable. Unbooked locations are internal management estimates. Unbooked locations do not have attributed reserves or resources (including contingent or prospective). Unbooked locations have been identified by management as an estimation of Athabasca's multi-year drilling activities expected to occur over the next two decades based on evaluation of applicable geologic, seismic, engineering, production and reserves information.

There is no certainty that the Company will drill all unbooked drilling locations and if drilled there is no certainty that such locations will result in additional oil and gas reserves, resources or production. The drilling locations on which the Company will actually drill wells, including the number and timing thereof is ultimately dependent upon the availability of funding, commodity prices, provincial fiscal and royalty policies, costs, actual drilling results, additional reservoir information that is obtained and other factors.

**Non-GAAP Measures**

"Adjusted Funds Flow," "Free Cash Flow" and "Annual Capital Investments" are financial measures contained in this ESG report that do not have standardized meanings prescribed by IFRS and are considered to be non-GAAP measures. Such measures may not be comparable to similar measures presented by other issuers and should not be considered in isolation with measures that are prepared in accordance with IFRS.

Adjusted Funds Flow and Free Cash Flow are non-GAAP financial measures and are not intended to represent cash flow from operating activities, net earnings or other measures of financial performance calculated in accordance with IFRS. The Adjusted Funds Flow and Free Cash Flow measures allow management and others to evaluate the Company's ability to fund its capital programs and meet its ongoing financial obligations using cash flow internally generated from ongoing operating related activities. Adjusted Funds Flow and Free Cash Flow are calculated as follows:

<b>(\$ Thousands)</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Cash flow from operating activities	\$(67,826)	\$(70,968)	\$61,697	\$83,844	\$92,632	\$(22,910)	\$194,253
Changes in non-cash working capital	(3,031)	4,577	20,732	(103,787)	58,453	(11,670)	(11,872)
Settlement of provisions	3,481	5,845	8,647	9,937	3,675	10,150	1,684
Restructuring expenses	20,373	-	-	3,604	-	5,703	-
Receipt of proceeds from derivative unwind	-	(40,956)	-	-	-	-	-
Acquisition expenses	-	-	11,047	-	-	-	-
Long-term deposits	-	-	-	12,577	-	-	-
<b>ADJUSTED FUNDS FLOW</b>	<b>(47,003)</b>	<b>(101,502)</b>	<b>102,123</b>	<b>6,175</b>	<b>154,760</b>	<b>(18,727)</b>	<b>184,065</b>
Annual Capital Investments <sup>(1)</sup>	(291,667)	(122,267)	(212,601)	(193,980)	(140,207)	(88,900)	(92,142)
<b>FREE CASH FLOW</b>	<b>\$(338,670)</b>	<b>\$(223,769)</b>	<b>\$(110,478)</b>	<b>\$(187,805)</b>	<b>\$14,553</b>	<b>\$(107,627)</b>	<b>\$91,923</b>

(1) Non-GAAP measure. See section below.

Annual Capital Investments is not intended to represent capital expenditures. Annual Capital Investments is calculated by combining cash outflows for additions to property, plant and equipment and additions to exploration and evaluation assets totalling capital expenditures, then netting the recovery of the capital-carry proceeds. This measure allows management and others to evaluate the true net cash outflow related to Athabasca's capital expenditures.

<b>(\$ Thousands)</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Capital expenditures	\$(291,667)	\$(128,079)	\$(262,048)	\$(276,328)	\$(119,141)	\$(111,640)	\$(92,142)
Recovery of capital - carry proceeds	-	5,812	49,447	82,348	58,934	22,740	-
<b>Annual Capital Investments</b>	<b>\$(291,667)</b>	<b>\$(122,267)</b>	<b>\$(212,601)</b>	<b>\$(193,980)</b>	<b>\$(140,207)</b>	<b>\$(88,900)</b>	<b>\$(92,142)</b>

The supplementary financial measure "Liquidity" is defined as cash and cash equivalents plus available credit capacity.

**Oil and Gas Information**

The Company uses the term "barrels of oil equivalent" (or "boe"), which is consistent with other oil and gas companies' disclosures. The term boe may be misleading, particularly if used in isolation. A boe conversion ratio of six thousand cubic feet of natural gas to one barrel of oil equivalent (6 Mcf: 1 bbl) is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. As the value ratio between natural gas and crude oil based on the current prices of natural gas and crude oil is significantly different from the energy equivalency of 6:1, utilizing a conversion on a 6:1 basis may be misleading as an indication of value.

This ESG report contains certain other oil and gas metrics, including "steam oil ratio" or "SOR", which do not have standardized meanings or standard methods of calculation and therefore such measures may not be comparable to similar measures used by other companies and should not be used to make comparisons. Such metrics have been included herein to provide readers with additional measures to evaluate the Company's performance; however, such measures are not reliable indicators of the future performance and future performance may not compare to the performance in previous periods and therefore such metrics should not be unduly relied upon. Steam oil ratio, or SOR, measures the average volume of steam required to produce a barrel of oil.

PRODUCTION	UNITS	2015	2016	2017	2018	2019	2020	2021
<b>Light Oil:</b>								
Conventional Natural Gas	mcf/d	8,975	3,966	1,182	780	252	13	110
Shale Gas	mcf/d	8,203	9,891	19,707	32,324	28,028	23,216	20,396
Condensate NGLs	bbl/d	362	788	2,687	2,793	2,009	1,964	1,375
Other NGLs	bbl/d	642	383	505	1,049	918	785	856
Light & Medium Crude Oil	bbl/d	808	331	104	98	27	2	20
Tight Oil	bbl/d	913	784	758	1,823	2,471	3,116	2,144
<b>Total Light Oil Division</b>	boe/d	5,587	4,597	7,535	11,280	10,138	9,738	7,813
<b>Total Thermal Oil Division Bitumen</b>	bbl/d	1,973	7,384	27,886	27,923	26,058	22,745	26,805
<b>Total Company Production</b>	boe/d	7,560	11,981	35,421	39,203	36,196	32,483	34,618