Vermilion Energy Inc.

Values Matter || 2022 SUSTAINABILITY REPORT

Excellence. Trust. Respect. Responsibility.

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Disclaimer

Certain statements included or incorporated by reference in this document may constitute forward-looking statements or financial outlooks under applicable securities legislation. Such forward-looking statements or information typically contain statements with words such as "anticipate", "believe", "expect", "plan", "intend", "estimate", "propose", or similar words suggesting future outcomes or statements regarding an outlook. Forward looking statements or information in this document may include, but are not limited to: capital expenditures and Vermilion's ability to fund such expenditures; business strategies and objectives; operational and financial performance; sustainability (Environment, Social, and Governance or ESG) data and performance; estimated volumes of reserves and resources; petroleum and natural gas sales; future production levels and the timing thereof, including Vermilion's 2022 guidance, and rates of average annual production growth; the potential financial impact of climate-related risks; acquisition and disposition plans and the timing thereof; operating and other expenses, including the payment and amount of future dividends; royalty and income tax rates and Vermilion's expectations regarding future taxes and taxability; and the timing of regulatory proceedings and approvals.

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Abbreviations & Terms

Term/Abbreviation	Definition
bbl(s)	barrel(s)
bbls/d	barrels per day
boe	barrel of oil equivalent, including: crude oil, natural gas liquids and natural gas (converted on the basis of 1 boe = 6 mcf of natural gas)
boe/d	barrel of equivalent per day
CO2e	carbon dioxide equivalents
EESG	Economic, Environmental, Social and Governance Issues
GHG	Greenhouse gas
GJ	Gigajoules
GRI	Global Reporting Initiative
HSE	Health, Safety, Environment
$M	thousand dollars
$MM	million dollars
mbbls	thousand barrels
mboe	thousand barrel of oil equivalent
mmboe	million barrel of oil equivalent
MWh	megawatt hour
NGLs	natural gas liquids
PPE	Personal Protective Equipment

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President's Message

I am pleased to introduce Vermilion Energy's ninth sustainability report, focusing on how we deliver the strategy and performance that shapes our purpose: to responsibly produce essential energy while delivering long-term value for our stakeholders.

The events of 2022 have highlighted the extent to which affordable and accessible energy is essential to our daily lives. At Vermilion, our response is to ask how we can contribute to solutions to an energy transition that is balanced by the energy security needed not just here at home, but by those around the globe.

Responsible Production

We anticipate governments to strengthen support for renewable forms of energy, and we support this. The past 12 months have shown that we must also provide a stable and reliable bridge, via responsibly produced oil and natural gas, to the time when renewable energy can provide the coverage and consistency needed.

Our contribution to the solutions comprises two phases. The first is providing reliable, responsible traditional energy, as our products are part of the domestic supply of energy in many countries where we operate. Reducing emissions is one of the clearest demonstrations of our commitment to responsibility. This includes our aspirational net zero goal and our near-term target: we have reduced Scope 1 emission intensity by 5% in the last two years, on track to reaching our 15 to 20% by 2025 target.

The investment to achieve this is currently part of our operating and maintenance budgets, but this will change as our emission reduction ambitions ramp up. In the meantime, this supports our disciplined capital approach, and our balance between debt reduction and return of capital.

Energy Evolution

Our second phase of support for the energy transition — or, evolution, as we believe that as the emission profiles of traditional fuels, especially natural gas, are reduced, their role as bridge fuels will continue — is exploring emerging technologies and energy sources. To manage the risks involved in early maturity projects, we are emphasizing technologies such as geothermal, biogas and hydrogen that are closely related to our existing operations, including the potential to repurpose existing infrastructure. We are partnering with organizations that have expertise in these areas, and using our project development process to provide careful risk management while these new technologies become implementable and cost-competitive at scale.

Indeed, partnerships reflect our belief that the broad and critical issues of supplying energy require all stakeholders to offer their expertise, support and solutions — along with a spirit of collaboration that recognizes the oil and natural gas industry as committed to solutions: deploying economically and technically feasible options, and researching those on the horizon.

Caring Culture

While climate-related issues are important, we have always believed that our staff and our communities are essential, not just as part of the ESG equation, but as integral elements in our success.

I am very proud of the way these came together in the past year. Our staff contributed to our matching campaign for the Red Cross's relief efforts for Ukraine, helping us toward a donation of $250,000. And in June, many staff lent helping hands to organizations around our operations, from homeless shelters to food banks, as part of our month of caring. These efforts reinforce our caring culture.

As you read this report, please share any comments or suggestions, including on the energy transition, via our dedicated email. We look forward to sharing the journey with you.

Sincerely,

Dion Hatcher
President

Vermilion is guided by our core values:

- ***Excellence***
- ***Trust***
- ***Respect***
- ***Responsibility***

Introduction

Vermilion at a Glance

Our Focus

Founded in 1994, Vermilion is a publicly traded, widely held, international energy producer headquartered in Calgary, Canada.

We seek to create value through the acquisition, exploration, development and optimization of producing properties in North America, Europe and Australia — regions noted for their stable, well-developed fiscal and regulatory policies related to energy exploration and development.

Our Purpose

At the core of our business is our purpose:

To responsibly produce essential energy while delivering long-term value to our people, shareholders, customers, partners and communities.

We believe that providing energy to the many people and businesses around the world that rely on it to meet their daily needs and sustain their quality of life is both a great privilege and a great responsibility.

Our Priorities

We prioritize health and safety, the environment, and profitability, in that order. Nothing is more important to us than the safety of the public and those who work with us, and the protection of our natural surroundings.

Our energy transition strategy focuses on reducing environmental impacts of traditional oil and natural gas production while developing renewable energy projects closely related to our core competencies.

Our strategy aligns closely with the ideals and goals expressed in the Sustainable Development Goals, which we refer to throughout this report. [102-15]

8.1 Sustain per capita economic growth

Economic & Operational Highlights

Our Operations

Vermilion's operations are focused on the exploitation of light oil and liquids-rich natural gas conventional and unconventional resource plays in North America and the exploration and development of conventional natural gas and oil opportunities in Europe and Australia.

In 2021, Vermilion produced 36.7 million operated boe of oil and natural gas, thereby investing:

- $188 million in wages and benefits to our employees
- $232 million in taxes and royalties in our operating jurisdictions
- $1.16 million in community support
- $53 million in protecting our environment, and
- $818 million to the 9,200+ entities in our supply chain

In the past 12 months, we've made two key acquisitions:

- 2022: Acquired Leucrotta Exploration Inc., providing us with 77,000 net acres of Montney mineral rights with an expected 20+ years of low-risk, self-funding, high-deliverability drilling inventory
- 2021: Entered into an agreement to acquire Equinor Energy Ireland Limited, which will increase our operated interest in Corrib to 56.5% upon closing, expected in H2 2022

Vermilion's 2022 guidance:

- 86,000 - 88,000 boe/d production[1]
- $500 million in capital expenditures

Our Business Model

Vermilion's business model relies on our five long-standing core business principles, which are based on a conservative, long-term focus on balance sheet strength and capital discipline to generate strong returns.

They include:

- Maintaining a strong balance sheet with low leverage
- Managing a total payout ratio of less than 100%
- Consistently delivering results that meet or exceed expectations
- Protecting equity to minimize dilution, and
- Maintaining a strong corporate culture.

Management and Evaluation

Vermilion's Strategic Plan includes six Matters of Importance, with strategic objectives that guide the Company's business plans to 2030:

- Extraordinary People and Culture
- Health, Safety and Environment
- Financial Discipline
- Robust and Profitable Portfolio
- Business and Operational Excellence
- Integrated Sustainability

These provide short, mid- and long term targets for the company and our people. We set annual commitments within each, and track achievements quarterly, reporting to senior management and our Board of Directors. Progress is reported annually in our Information Circular, and is also tracked using key performance indicators within our Short and Long Term Scorecards to assess company and individual performance, which is linked directly to compensation.

In addition to economic and investment metrics, our strategic objectives are guided by feedback from our external stakeholder, including external recognition (see the Awards section of this report), voting results at our Annual General Meeting, and input from governance, investment and sustainability analysts, our communities, and our people.

Our Value Chain

Our success is made possible thanks to close to 1,000 staff (employees and contractors, as of December 2021) located throughout our operations, and through an extensive supply chain.

Our supply chain encompasses a wide range of inputs, including specialized field expertise and technology, supplies ranging from drilling mud to event facilities, and expert consultant advice. It is extremely important to us that our suppliers not only deliver a sound financial investment in their goods and services, but operate in a manner that aligns with the values that guide our own corporate culture. As a result, we have strict requirements for third-party vendors who do business with Vermilion. [102-29]

Our asset base comprises a diversified product and project portfolio that receives premium advantage pricing. This increases the stability of our cash flows and our flexibility in allocating our exploration and development capital. exposure to robust end markets that include:

- *North American-based midstream and downstream refiners*
- *Asia Pacific-based refining and lubricant markets*
- *European downstream refiners, and*
- *Key aggregators and utilities.* [102-6]

[1] Including Leucrotta, but excluding Corrib

Sourcing Our Energy

Hydrocarbon Basics

Vermilion focuses on conventional exploration and development in Europe and Australia, and on conventional, semi-conventional and unconventional exploration and development in North America.

- Approximately half of our oil and gas is produced without hydraulic fracturing
- We do not use hydraulic fracturing in Australia or Europe (with the exception to date of one well in Hungary)
- When we use hydraulic fracturing, it is under strict government regulation, and at depths that have not been correlated with seismic effects or impacts to groundwater

Rocks and Reservoirs Explained

All hydrocarbons (including oil and natural gas) are created from microscopic plants and organisms that lived predominantly in the ocean millions of years ago. When these plants and organisms died, they sank to the ocean floor, became preserved as kerogen and were covered by layer upon layer of sediment over millions of years. As the layers became more deeply buried and compacted, the heat and pressure within them began to rise, ultimately transforming kerogen into the hydrocarbons we know today.

Source rocks are the organic-rich layers of rock in which hydrocarbons are formed.

The pressure surrounding them generally forces the hydrocarbons to migrate upward from the compact or "tight" source rock into more porous and permeable layers of rock, known as **reservoir rock**.

The classification of a reservoir as conventional, unconventional or semi-conventional depends on the specific geology of the rock and the reservoir conditions encountered at depth.

Conventional Deposits

Generally, **conventional reservoir rocks** such as sandstones, siltstones and carbonates have sufficient porosity (the vacant space within the rock) and permeability (the connectivity between pore spaces) to allow fluids such as crude oil, natural gas and water to flow within and through the rock. Left unimpeded, the hydrocarbons continue their migration up towards the surface and escape as natural gas vents or oil seeps.

This upward migration, however, is often blocked by a layer of impermeable rock or other geologic formation. This traps the hydrocarbons, which then accumulate to form a **hydrocarbon deposit.**

If the reservoir rock has sufficient permeability to allow the hydrocarbons to naturally migrate within and through the rock, they are often referred to as **conventional pools or deposits**.

Recovering these hydrocarbons is generally referred to as conventional oil and natural gas exploration and development. Once the deposit is accessed, the hydrocarbons either flow naturally to the surface under the reservoir's natural pressure, or can be pumped to the surface.

Decades of oil and gas production around the world have resulted in a decline of conventional resources, with the majority of them already subject to development.

Semi-Conventional Reservoirs

Vermilion uses "semi-conventional reservoirs" to describe reservoirs that – while requiring technology beyond pumping to bring hydrocarbons to the surface – can be accessed with significantly less intensive techniques than are required for full-scale unconventional production such as that of shale oil/gas production. As a result, these stimulations use a lower amount of pressure, water and other assorted products that are involved in those for unconventional reservoirs. Approximately one third of Vermilion's production comes from this reservoir type.

An example of this is the Cardium formation in western Canada, which is considered one of the largest stratigraphically trapped reservoirs in the world. It has been developed conventionally with vertical wells and limited stimulation for decades. However, new drilling techniques in the last decade such as hydraulic fracturing, horizontal drilling and new stimulation alternatives have made it technologically and economically feasible to access the reservoirs within the formation that historically have been too "tight" to produce.

Unconventional Deposits

Unconventional or "tight" deposits are usually classified as shale, siltstone or carbonates that are rich in mature organic matter, complex mineral compositions, laminated structures and tight storage space. They generally have ultra-low permeability and low porosity that prevent the hydrocarbons from flowing naturally through the rock.

This means that the hydrocarbons don't form easily accessible pools that can be produced at the surface.

This is where hydraulic fracturing plays a role: Multi-stage hydraulic fracturing using horizontal wellbores makes it both possible and economical to produce from these previously inaccessible (unconventional) reservoirs.

Regardless of how they are produced, or the type of reservoir they come from, unconventional hydrocarbons are essentially the same as conventional hydrocarbons. The term "unconventional" simply refers to the methods that are used to extract them as well as the type of reservoir rock from which they are produced.

Shale gas or shale oil is a particular type of unconventional resource that has not migrated and is produced directly from the organic-rich source rock in which it was formed.

Hydraulic Fracturing

Hydraulic fracturing is a government-regulated technology that has been successfully used in North America for more than 60 years. Government regulations, in combination with industry operating practices and Vermilion's own priorities of public and employee safety, environmental stewardship and operational excellence, help ensure safeguards are in place to protect the environment, including freshwater aquifers, and to ensure safe and responsible operations.

Hydraulic fracturing is a well stimulation technique in which rock is fractured by a pressurized liquid. The process involves the high-pressure injection of 'fracking fluid' (primarily water, containing sand or other proppants suspended with the aid of thickening agents) into a wellbore to create cracks in the deep-rock formations through which natural gas, petroleum, and brine will then flow more freely. When the hydraulic pressure is removed from the well, small grains of hydraulic fracturing proppants (such as sand) hold the fractures open.

We publicly disclose 100% of the additives we use to FracFocus in both Canada and the United States, as well as via our regulatory submissions. We continue to work to decrease the required concentration of our additives and we work with our fracturing suppliers to source even better alternatives for future consideration.

For more information about our approach to water stewardship during fracking, see our Water Stewardship section.

Sustainability Vision

Our approach to sustainability, and our business in general, is that we prioritize people and the environment over profitability: the safety and health of our employees, contractors and those directly or indirectly involved in our operations is placed above all else. [102-15]

Vermilion's sustainability report is our way of communicating how we identify the economic, environmental and social impacts of our operations, and how we integrate their associated opportunities and risks into our business strategy. Over time, our reporting activities are helping us to realize our sustainability vision, which is closely aligned with our company's purpose: as an international company, we responsibly produce essential energy while delivering long-term value to our people, shareholders, customers, partners and communities.

We understand our moral and legal duty to operate in a manner that protects the health and safety of our people and communities, provides responsible stewardship over the environment, and treats our people, partners and suppliers respectfully and fairly.

From the landowners with whom we share the landscape, to the families and businesses that rely on oil and gas to fuel their daily needs, our exploration and production activities have potential effects on a wide range of stakeholders who expect Vermilion to deliver consistently strong financial results in a responsible and ethical way.

These expectations align economic success with every element of our sustainability commitments, and have led us to prioritize our objectives in the following order:

1. The safety and health of our staff and those involved directly or indirectly in our operations. Nothing is more important.
2. Our responsibility to protect the environment. We follow the Precautionary Principle 102-11 introduced in 1992 by the United Nations "Rio Declaration on Environment and Development" by using environmental risk as part of our development decision criteria, and by continually seeking improved environmental performance in our operations.
3. Economic success through a focus on operational excellence across our business, which includes technical and process excellence, efficiency, expertise and stakeholder relations.

We believe these three priorities generally do not conflict with each other, because business that is conducted in the safest and cleanest manner is also most likely to be the most profitable way to do business over the long term. Where they may be in conflict, we instruct our staff that the health and safety of people and the protection of the environment must always take priority over profitability.

For more information on how we manage sustainability, please see our Energy Transition section, including Governance and Strategy.

Sustainability Policy

Guided by our Code of Business Conduct and Ethics, Vermilion meets or exceeds the requirements of all applicable laws and standards in the communities where we operate, through all of our activities, including exploration, drilling, completion, operation and remediation. In doing so, we are committed to transparent and respectful engagement with our stakeholders, including our investors, employees, partners, suppliers and communities.

Sustainability is integrated into all facets of our business, and is reflected in the following five key areas:

Governance and Ethics

Vermilion demonstrates strong corporate governance, with leadership that sets an example of the highest standards of ethics and integrity and a commitment to the responsible development of our diverse resource portfolio.

Our leadership model effectively embeds ethical, fiscal, environmental and social considerations into all aspects of our business, resulting in operational excellence and the protection of our human, natural, financial, operational, intellectual and reputational capital.

Economic Performance

Vermilion recognizes that strong, consistent fiscal performance provides positive economic benefits for all of our stakeholders.

We are financially disciplined,with a focus on balance sheet strength and return of capital. This approach, together with our technical and intellectual excellence, ensures we recognize and develop appropriate opportunities, effectively manage risks, and continuously improve operational efficiency.

People

Vermilion's commitment to people is embedded in our core values: we embrace diversity, we value and care for our people, and believe every employee and business associate worldwide deserves to be treated with dignity and respect.

We recognize the principles of The Universal Declaration of Human Rights, and have policies in place to support these principles throughout our operations, including creating a fair and equal-opportunity workplace.

We challenge and inspire our employees to achieve their best, and value the teamwork, collaboration and innovation that lead to creating both a great place to work and outstanding company performance.

Health, Safety and Environment

Vermilion is committed to conducting our activities in a manner that will protect the health and safety of our employees, contractors and the public while reducing our impact on the environment.

We fully integrate HSE into our business – with the mantra of Everyone. Everywhere, Everyday. Our vision is that the consistent application of our core values results in a workplace free of incidents, and that our proactive culture and behaviours create a high-reliability organization where HSE is fully integrated into our business; it is our way of life.

Every staff member, including management, is accountable for HSE and is actively involved in continuously delivering HSE performance improvements.

Communities

Vermilion strives to support the communities in which we operate using a shared value model. We work to develop economic and employment opportunities, build positive relationships and contribute to meaningful, mutually beneficial partnerships that strengthen both the community and our company capacity.

Our community investment program contributes to the quality of life in our communities through both charitable giving and employee engagement, supporting social, environmental and cultural issues. Through this program, our "Ways of Caring," we give back, we give time and we give together.

To meet our commitments, we rely on the framework and priorities provided by our sustainability policy:

Vermilion's sustainability policy is guided by our core values of Excellence, Trust, Respect and Responsibility. It applies to all of our operations, and in each of the communities where we live and work. Sustainability is led by our senior management team and supported by our Board of Directors, and championed by our employees and contractors. It applies equally to our suppliers and to those who represent us or conduct activities on our behalf.

Company Performance

From 2017 to 2020, Vermilion was recognized with a Leadership Level rating of A- in the CDP Climate submission. In 2021, consistent with overall scoring of the upstream oil and gas sector, we received a B. Vermilion also received a B for our CDP Water Security submission in 2020 and 2021.

Vermilion continued its"AA" rating in 2022, on a scale of AAA (leader) to CCC (laggard) in the MSCI ESG Ratings assessment, which reflects exposure to industry-specific ESG risks and the ability to manage those risks. [1] The use of any MSCI ESG Research LLC or its affiliates ("MSCI") data, and MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement, recommendation, or promotion of Vermilion by MSCI. MSCI services and data are the property of MSCI or its information providers, and are provided 'as-is' and without warranty. MSCI names and logos are trademarks or service marks of MSCI.

As of July 2022, Vermilion received ISS decile QualityScores of "1" for Environment and "2" for Social disclosures and transparency

In 2020, we were recognized by the Great Place to Work Institute® as a Best Workplace in Canada and Germany (Lower Saxony and Bremen Region).

We have been recognized annually for excellence in governance practices as part of the Globe and Mail annual Board Games survey since 2006. In 2021, we ranked 3rd in our peer group and 7th among Canadian oil and gas companies.

Our geothermal heat partnership with tomato growers in Parentis, France was recognized by the Government of France's 2013 Circular Economy Award for Industrial and Regional Ecology.

Year-over-year recognition by the Canadian Coalition for Good Governance for best practices for proxy disclosure in the area of corporate governance relating to directors' independence and benefits and perquisites. Golden Gavel Award recipient for Best Disclosure of Governance Practices and Approach to Executive Compensation by a small or mid-sized issuer.

About Our Report

Our 2022 Sustainability Report is Vermilion's ninth report on how we manage economic, environmental, social and governance (EESG) factors, including impacts, risks and opportunities, This report covers Vermilion's operated business units, including Canada, France, Netherlands, Germany, Ireland, Central and Eastern Europe Business Unit, Australia) and U.S. It also comprises two reports in one: a full sustainability report, and a Climate/ Task Force on Climate-related Financial Disclosures Report.

Within each section of the report, we establish key areas of discussion for each of Vermilion's nine identified Material Topics under GRI Universal and Topic-Specific Standards, and Sustainability Accounting Standards Board recommendations, incorporating GRI's 10 key Reporting Principles for defining report content and quality [102-49]

- Dashboard page with the most recent updates
- Approach section that details why the Aspect is material, how we manage it, and how we evaluate and adjust as needed (our Discussion of Management Approach), and
- Individual pages that create easily accessible information for long-term projects.

Where updates of previously reported information were required, they are noted in our Performance Metrics. [102-48]

To support validation and review of the report, we engage with sustainability and socially responsible investment analysts on an ongoing basis to support our alignment with ESG frameworks and rating agency recommendations, best practices, and continuous improvement.

Specific data was independently audited or verified by the following organizations: GLJ Petroleum Consultants (reserves), Deloitte (financial); Jacobs (emissions metrics externally verified under ISO 14064-3). [102-56]

Our Value Chain

Vermilion's operations influence an extensive value chain that connects energy resources with activities that are essential to our daily lives, including transportation, manufacturing and heating, thus contributing to the strength and resilience of the global economy and to energy security. [102-9]

Exploration	Supply	Production	Transportation	Product Use
How we identify, analyze and develop new energy opportunities.	The external contractors, suppliers, materials and expertise we leverage throughout our processes for both traditional and alternative geothermal energy production, including geothermal cogeneration.	How we extract oil, gas, associated byproducts, and geothermal heat from our operating properties, through the lifecycle from drilling & completion to production, cogeneration and reclamation.	How Vermilion transports and markets our products and byproducts, along with the subsequent transportation of those products to the end consumer.	The midstream and downstream refiners who are our customers, the manufacturers and consumers who use the resulting products, and the partners who benefit from our geothermal cogeneration projects.

Value, impact or influence

Exploration	Supply	Production	Transportation	Product Use
Our decisions about where to operate and how best to source energy offer job creation and economic assets for communities, while requiring strong safety and environmental protection and community capacity analysis	Our purchasing decisions, including our performance expectations of suppliers, have a strong influence on company and community safety, environmental impacts and economic success	We focus on the operational excellence of our people, processes and technology to maximize safety and environmental management and economic value; this includes the land reclamation stage of well life cycle management	This supports local energy security, job creation and economic success while potentially involving safety and environmental impacts, including pipeline, road and rail transport safety, waste transportation and disposal safety	The economic value, and the potential safety and environmental impacts, of our products are important to industrial, financial and consumer sectors, all of which rely on a stable and secure energy supply

Focus of operational activity & decision making

Exploration	Supply	Production	Transportation	Product Use
Internal to Vermilion, with external consultation	Both internal and external to Vermilion	Primarily internal to Vermilion, with external consultation	Primarily external to Vermilion	Primarily external to Vermilion

Key stakeholders, listed by degree of impact [102-40]

Exploration	Supply	Production	Transportation	Product Use
• Communities • Government • Investors • Employees • Partners • NGOs	• Suppliers • Employees • Investors • Communities	• Communities • Investors • Employees • Partners • Government • NGOs • Media	• Communities • Partners • Customers/end users • Investors • Government • NGOs	• Customers/end users • Investors • Government • NGOs • Media

Primary issues [102-44] (top three to five identified through stakeholder engagement and issues monitoring)

Exploration	Supply	Production	Transportation	Product Use
• Safety • Environment • Community relations • Regulation • Governance	• Safety • Environment • Efficiency • Supply chain management	• Safety • Environment, including GHG emissions • Community / government relations • Staff relations • Efficiency	• Transport safety • GHG emissions • Spills • Ethics • Stable supply	• Safety • Stable supply • GHG emissions • Cost • Regulation

Stakeholder Engagement

Our people, communities, investors, governments and regulators, and partners and suppliers are Vermilion's key stakeholders: those who have the greatest impact on our business, or who are most impacted by our activities.

We base stakeholder identification and prioritization on our understanding and analysis of our value chain, with engagement that is guided by their impact and influence.[102-42 ,413-1]

Our key stakeholders influence our business and operations in important ways, including capital to fund our activities, licenses for exploration and production, and expectations regarding safety and environmental performance.

Meeting these expectations is the key to maintaining and growing our license to operate, and we therefore engage with these stakeholders on a regular and ongoing basis. [102-43]

Our corporate external stakeholder relations framework reflects the importance of community and government support, which we manage on a business unit-specific basis. This includes Public and Government Relations staff in France, Netherlands, Ireland, Germany, and Central and Eastern Europe; a regulatory specialist in the United States; our Land department in Canada (which plays a key role in both community and Indigenous Peoples relations), and those responsible for our Safety Case and Environment Plan in Australia.

While regulations prescribe specific external stakeholder engagement, our approach is to also proactively communicate with our community and government stakeholders – both individually and in venues such as town halls, open houses and visitor centres, where we provide information about our activities (planned and ongoing) and invite feedback. For example, as we evaluate and prioritize our exploration opportunities, we present activity plans, including managing the environmental and social impact of our activities, to partners, government and regulatory authorities, and public and community stakeholders.

For stakeholders with lesser degrees of impact or influence, our engagement is more specific and generally involves direct issue-related communication.

The following table details how we engage with our stakeholders, topics raised, and how we have responded.
102-40,102-42,102-43,102-44

Identifying Issues

To identify the topics relevant to our sustainability strategy and its integration within the business, we begin by reviewing our existing issues, and those that we have added based on stakeholder engagement and recommendations, including those related to:

- International standards, including the United Nations Global Compact, OECD Guidelines for Multinational Enterprises, The Universal Declaration of Human Rights, the Global Goals for Sustainable Development (SDGs) and the United Nations Declaration on the Rights of Indigenous Peoples
- Sector-related government, regulatory and industry bodies, including the Extractive Industries Transparency Initiative
- Reporting entities such as the Sustainability Accounting Standards Board (IFRS/ISSB), The Task Force on Climate-Related Financial Disclosures, European Union Corporate Sustainability Reporting Directive, GRI and CDP
- ESG thought leaders, peer companies and media reports [102-15 102-46 102-47 103-1]

Current and Potential Investors

Engagement Channels	Topics Related	Response
Annual General Meeting and webcast, distribution of annual report & proxy statement	Financial results	Ongoing communication of material issues and results
Annual benchmarking against peers through Globe and Mail Board Games	Increasing emphasis on climate-related strategy and reporting, along with evolving regulatory approaches to sustainability reporting	CDP Climate Change and Water Security Responses
Business updates, analyst conference calls	Reporting recommendations from TCFD, SASB (IFRS), ISSB and EU	Sustainability reporting evolution
Ongoing presentations to investor and industry conferences, with webcasts posted on external Vermilion website and intranet		Response to requests for interviews and other input
Ongoing monitoring of and response to investor relations e-mail and phone inquiries		Reviews of evaluations by ESG rating agencies, including corrections, responses and engagement
Ongoing monitoring of and response to social media including LinkedIn		Input into business strategy
Media monitoring/ media appearances		
News releases		
Engagement on sustainability-related queries from ESG investment agencies, potential investors and current shareholders		
Feedback for TCFD and SASB proposed changes, directly and via industry groups		

Partners and Suppliers

Engagement Channels	Topics Related	Response
HSE Pre-qualification screening and auditing of operations to ensure compliance	HSE performance	Development of HSE High Five personal safety initiative
Safety meetings, including both Vermilion staff and our contractors and partners	Access to opportunities	Focus on operational excellence
Briefings from Vermilion staff on expected standards of behavior, including our Code of Business Conduct and our Anti-Discrimination and Harassment Policy	Production and financial results	RFPs and invitations to bid
Meetings, etc. to review requirements and negotiate contracts, as needed		
Daily operations, including inspections and field audits		
Meetings, phone calls, e-mails as issues or concerns arise		

Employees

Engagement Channels	Topics Related	Response
Great Place to Work® program confidential staff survey, communication of results to staff through e-mails and meetings, ongoing engagement of staff in feedback and improvement action planning meetings from department to team levels	Strategic direction of the company	Executive Committee response to town hall suggestions and questions
Global town halls, with executive question-and-answer sessions based on questions submitted anonymously in advance, or during the meeting	Employee engagement and satisfaction	Implementation of suggestions from staff working groups
Additional confidential staff surveys on topics such as HSE (Perception Survey), compensation and strategic community investment (choices of non-profit partners, activities, etc.)	Communication (internal and external) of strategic community investment program	Implementation of Fair Culture Policy in all business units
Additional town halls in each of our business units with leadership question-and-answer sessions	Clear communication and implementation of HSE program	2021 implementation of our refreshed VET Vision, with strategy to 2030
Extensive annual lunch and learn program with company, industry and wellness topics		
Whistleblower policy, 24/7 (referred to internally as “Reporting of Inappropriate Activity”)		
Company-wide working groups established to refresh our strategic plan		

Communities

Engagement Channels	Topics Related	Response
HSE Pre-qualification screening and auditing of operations to ensure compliance	Community support and capacity building	Progressing community investment program in all locations based on community and staff engagement (see Our Communities in this report) and guided by the concept of Creating Shared Value
Safety meetings, including both Vermilion staff and our contractors and partners	Public safety	Discussions with local communities regarding impacts and potential partnerships
Briefings from Vermilion staff on expected standards of behavior, including our Code of Business Conduct and our Anti-Discrimination and Harassment Policy	Environmental stewardship	Increased engagement with Indigenous Peoples communities, including business opportunities and community investment
Meetings, etc. to review requirements and negotiate contracts, as needed		Implementation of online community investment applications to streamline process for community groups
Daily operations, including inspections and field audits		
Meetings, phone calls, e-mails as issues or concerns arise		

Governments and Regulators

Engagement Channels	Topics Related	Response
Regulatory requirements in all of our locations	Compliance	Compliance with or exceeding all regulatory requirements
Meetings, phone calls, conferences with government officials, ongoing	Technical expertise	Audits and inspections to confirm compliance
Government-Industry working groups	Economic and community development	Proactive community investment and sustainability programs

NGOs: Industry, Environment, Social

Engagement Channels	Topics Related	Response
Ongoing participation in industry meetings and conferences	Increasing transparency and communication of sustainability performance	Annual CDP submission and engagement
High-level review of NGO positions and topics	Environmental concerns and performance based on location, location (see our Environment section)	Alignment of sustainability strategy with UN SDGs
Meetings with NGO representatives		Active engagement with ESG rating agencies, including CDP, Sustainalytics, MSCI, Vigeo-Eiris, ISS and S&P Global
		Focus on operational excellence, including compliance with or exceeding all regulations
		Use of feedback in developing internal environmental and social programs

Material Issues

Environment — Social — Governance

Our issues are cross-referenced to SASB and GRI, and evaluated as to high, medium or low impact for Vermilion and for our stakeholders, including how directly affected the stakeholders are, and whether issues span multiple stakeholder groups. This is based on external engagement and input from our Board and senior leadership. Our 2022 matrix reflects increasing importance for regulatory frameworks and community support, water management, biodiversity and supply chain risk.[102-49 102-46 102-47 103-1]

High

- Critical or immediate risk to health & safety, environment, financial performance, reputation, employee relations, community relations, or social license to operate
- Strong opportunity to significantly increase financial performance or operational efficiency
- Likely reflected in externally and internally stated policies and/or commitments

Medium

- Important but not critical risk; risk may be mid-term (2-6 years)
- Good opportunity to increase financial performance or operational efficiency
- Likely reflected in internally stated policies and/or commitments; may be included in external policies and/or commitments

Low

- Small or no risk; risk may be longer term (6-10 years)
- Does not apply in our geographic operating areas or to our business
- Small or no opportunity to increase financial performance or operational efficiency
- May or may not be reflected in policies and/or commitments

TCFD Report

Governance

As a responsible energy producer, Vermilion believes that we can best deliver long-term value by operating in an economically, environmentally and socially sustainable manner that recognizes the importance of all our stakeholders. We believe that integrating sustainability principles into our business increases shareholder returns, enhances development opportunities, reduces long-term risks, and supports the well-being of key stakeholders including the communities in which we operate.

Vermilion has established a leadership position in sustainability performance and disclosure, launching our first CDP Climate submission and our first Sustainability Report encompassing ESG impacts in 2014, with data to 2012, aligned with the Global Reporting Initiative (GRI). We have since aligned our sustainability reporting with additional recommendations from the Task Force on Climate-related Financial Disclosure (TCFD), the Value Reporting Foundation (VRF) including the Sustainability Accounting Standards Board (SASB), and the International Sustainability Standards Board (ISSB).

Of note this year, we have maintained our discussion of Governance in this Circular and moved the discussion of Strategy, Risk Management, and Metrics and Targets to our Annual Report. This recognizes the importance of climate-specific disclosure while reflecting its intersectionality with other environment-related risks and opportunities, social factors such as safety and community engagement, and governance-related matters.

Board Oversight

Integrated Sustainability is one of six strategic objectives that link together in our long-range business plan (as referenced at sustainability.vermilionenergy.com, under “About Vermilion” and “Our Approach to Business”). The Board therefore has responsibility for overseeing Vermilion’s sustainability- and climate-related strategy and performance, including direction, goals and targets, with Board committees providing additional sustainability-related expertise in their areas of focus:

Audit: risk management and internal control systems;

Governance and Human Resources: corporate governance and performance, including ethics; and People practices, including diversity, succession and development;

Health, Safety and Environment (HSE): occupational, process and asset safety; environmental stewardship; risk management; and HSE-related sustainability initiatives;

Independent Reserves: reserves and production; and

Sustainability: energy transition, including emission reduction targets; and social impacts, including human rights, community investment, and government and other stakeholder relations.

The Board and Sustainability Committee receive briefings and performance reports quarterly that include ESG performance, sustainability activities, updates from business unit leaders, environmental and social trends, and strategic community investment activities. These are augmented with continuing education from third parties in fields such as climate change and the energy sector, the energy transition, and ESG factors in institutional investment.

The Sustainability Committee provides oversight for the long-range sustainability strategy, its implementation, progress including key performance indicators, and methods of communicating sustainability policies and performance. The committee also identifies and reviews emerging risks and opportunities associated with sustainability issues, and their integration into Vermilion’s enterprise risk management framework and policies.

The committee Chair reports to the Board on the committee’s work; in addition, reflecting the holistic way in which sustainability issues impact the Company, most members of the Board attend Sustainability Committee meetings. Thus, sustainability- and climate-related information is considered when the Board oversees major decisions, such as long-range planning, budget and capital allocation, and mergers, acquisitions and divestments. In 2021, for example, the Board used the results of Vermilion’s climate-related scenario analysis to inform its guidance and approval of our emission reduction targets.

Management Role

Organizational responsibility for sustainability- and climate-related issues flows from the Board to our Executive Committee. This comprises the President, Executive Chairman, Vice President and Chief Financial Officer, Vice President, Business Development, Vice President, International and HSE, Vice President, North America, and Vice President, European Operations.

The President has direct responsibility for sustainability, including climate-related risks. Our Vice President, Sustainability reports to the President, and is responsible for developing sustainability strategy and reporting, including identifying, assessing and overseeing management of sustainability- and climate-related issues, working in partnership with corporate teams and business units to ensure the Company’s approach reflects the goals within our long-range business plan.

The Vice President, Sustainability also provides updates to and receives guidance from the Board and the Sustainability Committee at least

quarterly, and the Executive Committee monthly, on strategy, issues, performance and reporting.

The corporate sustainability team provides a centre of excellence approach, advising the business on all aspects of sustainability, including environmental, climate and social issues, based on extensive research and inputs from the business. The team is also responsible for external sustainability reporting, based on data from our HSE, People and financial information systems.

Our Vice President, North America and our Vice President, International and HSE lead the operationalization of sustainability, with business unit leaders responsible for strategy and activities, including managing climate-related risks and opportunities, with the support of sustainability leads in each business unit. The sustainability leads, along with the corporate sustainability team, meet quarterly to discuss related issues, trends and learnings. In addition, various departments within the Company report sustainability- and climate-related priorities and progress as frequently as weekly to management, and quarterly to the full Board or Board committees, on issues such as governance and ethics, HSE targets and performance, risk management, regulatory changes, and public and government relations.

Strategy

We have identified climate-related risks and opportunities in short- (0-3 year), medium- (3-6 year) and long-term (6-50 year) horizons. These are described below, with their potential company and financial impact (assessed using processes such as scenario analysis, cost projections and our Emissions Long-Range Planning tool), and our resulting management approach. Our annual CDP submissions provide additional information: see "Download Reports" at sustainability.vermilionenergy.com.

Issue	Description of Impacts[1]	Potential Financial Impact	Management Approach: Business, Strategy, Financial Planning
Short-term Transition Risks (0-3 Years)			
Policy and Legal: Increased Pricing of GHG Emissions e.g. Carbon Tax	Impact on Financial Performance: increased direct costs, impacting the Income and Cash Flow Statements Short-term: Carbon taxes are set to increase in several of our jurisdictions, resulting in increasing costs Canada: The Canadian Federal Greenhouse Gas Pollution Pricing Act has set carbon tax rates at $50 per tCO2e in 2022, rising to $170 by 2030. Ireland: EU Emissions Trading Scheme cap and trade system requires users to acquire carbon allowances to account for their emissions; Ireland carbon tax: €41 in 2022, increasing by €7.50/t annually to 2030 Germany: German National Emissions Trading System established in 2021; fixed cost of €30/t in 2022, increasing to €55/t by 2025 with market pricing from 2027 Netherlands: indirect carbon tax established in 2021; cost impact is limited Dynamic materiality: Carbon pricing is vulnerable to changes in governments and associated policy. We note a political focus in the EU, Canada, USA and Australia on a COVID-19 economic recovery that is both climate-focused and responsive to social justice issues such as labour practices, and the potential for carbon pricing in the US and Australia based on environmentally focused governments.	Financially material: without mitigation, carbon taxes could exceed $11MM/year by 2025 and $16.5MM by 2030 Sensitivity Analysis / Simulation: Based on existing carbon tax costs plus forecasting via government-announced or likely carbon pricing, which we input into our Emissions Long Range Planning Tool, the financial impact increases as follows (approximate figures, before mitigation): Canada: $2MM (2022) to $8MM (2025) Ireland EU ETS: $2.8MM (2021), 3.2MM (2025), $4 to 5MM (2030) Ireland Carbon Tax: $0.2MM/year 2021-2030 Germany: $.2MM in 2021	Mitigate – Financial Planning: Our exposure is mitigated in Canada by provincial responses to the federal Act, including Alberta's Technology Innovation and Emissions Reduction (TIER) regulation and Saskatchewan's Output-Based Pricing System (OBPS). We voluntarily opted into TIER, for example, which provides tax exemptions contingent on emissions reduction. However, these programs will evolve with the federal approach, with emission reduction requirements becoming more stringent over time. Mitigate – Strategy: Continue to reduce the energy and emissions intensity of our operations, supporting our carbon strategy's emission reduction targets (2025 and 2030), and: - Use of our Emissions Long Range Planning Tool to establish the tax reductions available compared to carbon abatement costs, analyze potential acquisitions and divestments, and allocate capital to emissions reduction projects - Develop an initial net zero strategy in 2023 to support our net zero by 2050 target, with business unit and operational input Accept – Strategy: In addition, we: - Track evolving taxation requirements - Engage external and in-house experts to support tax strategy development, including accepting the tax expense where carbon abatement costs are uneconomical
Policy and Legal: Enhanced Emissions-Reporting Obligations	Impact on Financial Performance: increased indirect costs, impacting the Income and Cash Flow Statements Impact on Financial Position: non-alignment potentially impacts access to capital and debt markets, equity price, creditworthiness and exposure to divestment risk Anticipating changes to and maintaining alignment with emissions reporting obligations is related to two distinct risks: 1. Jurisdictional emissions reporting: each of our operating regions has their own distinct reporting regime, many of which are changing annually to keep pace with additional expectations in this area 2. Sustainability reporting standards: we are managing the emergence of four standards that will impact reporting expectations, including data auditability, by 2025: International Sustainability Standards Board; European Sustainability Reporting Standards; Canadian Securities Administrators Climate-related Disclosure; and the US Securities and Exchange Commission Climate Disclosure	Operationally material: Jurisdictional and Securities compliance is non-discretionary Direct Measurement: Financial impact is measured in terms of staff time required to monitor and evaluate reporting obligations, and develop company responses to ensure we remain aligned, including quantification of emissions, and the data gathering and processing necessary to support and streamline these efforts. Staff time and data capacity is estimated at $0.5MM annually ($50K per BU and corporate office staff time; $100K data support).	Mitigate – Strategy: - In Canada, we implemented emission data gathering software in 2021 - Company-wide, we are improving and automating data gathering and processing capacity in 2022/2023 Accept – Strategy: - Monitor jurisdictional emissions reporting obligations on an ongoing basis - Engage stakeholders relating to emissions reporting obligations to better understand expectations - Work with industry associations such as Canadian Association of Petroleum Producers to review emerging standards and provide feedback to standard-setting bodies - Plan company response to ensure alignment

Issue	Description of Impacts[1]	Potential Financial Impact	Management Approach: Business, Strategy, Financial Planning
Policy and Legal: Mandates on and Regulation of Existing Products and Services: Changes in Climate-related Regulations, including Emissions, Water and the Environment Technology: Costs to reduce emissions	Impact on Financial Performance: increased direct costs to maintain compliance, including CAPEX, impacting the Income and Cash Flow Statements Impact on Financial Position: potential to decrease asset value, impacting the balance sheet Emissions regulations are becoming more stringent in many of our regions, including: - Canada: Canada's 2030 Emissions Reduction Plan; Target to Reduce Methane from the Oil & Gas Sector by 40-45% by 2025 and 75% by 2030 (2012 baseline); Support for Global Methane Pledge - France: Hulot Law; Commitment to End Routine Flaring by 2030 - Netherlands: Plan to Reduce Nitrogen-based Pollution in line with EU rules Water regulations have become more restrictive in Germany, where drilling in Water Protection Zones is no longer permitted. We believe it is reasonable to expect more stringent water regulatory approaches in areas of Canada and France should drought conditions occur. Environmental regulations are evolving in the United States, particularly with respect to oil and gas leasing on federal lands, including lands offered for lease by the Bureau of Land Management, where leases were halted, then reinstated but with fewer acres available. While this did not impact our operations or planning, we monitor such regulatory changes to ensure our strategy manages them effectively.	Operationally Material: Jurisdictional compliance is non-discretionary Dynamic materiality: may increase financial materiality 2025-2030 Budgeting forecast tools: capital investment of $10MM will likely be required between 2021 and 2025 to meet our Scope 1 emission intensity 2025 target; however, significant portions of this incorporate operationally important upgrades that are economic based on efficiency gains or maintenance requirements. This phase of emission improvements also benefit by reducing carbon taxes in some jurisdictions. As we progress to emissions that are more challenging to reduce, it's likely that capital investments will need to increase; however, as carbon taxes also rise and carbon markets solidify, we expect abatement costs to be economical for many projects.	Mitigate – Strategy: Evolving regulatory requirements feed into our long-term business strategy, which incorporates carbon reduction, including energy efficiency, emission reduction, and new technologies and processes. This includes our two emission reduction targets. Tying in vented equipment to flaring infrastructure in Canada is an example of projects completed to address this risk; in Netherlands we have used NOx scrubbers and purchased NOx certificates for various drills. We work with external partners to further implement and develop emission reduction technologies that are economic, in part due to the potential generation of carbon credits. We have a careful, deliberate approach to project development, to mitigate the risk of investing in unsuccessful technologies. Mitigate – Financial Planning & Capital Allocation: - All Risk Register cases are assessed annually for potential sustainability-related impacts, including those climate-related - Emission reduction and water requirements and intensity are factors in budget decisions for capital and operating expenses - Emission and water intensity and other ESG considerations are factors in M&A and divestment decisions - Collateral considerations such as training are included in mitigation Accept: - In Germany, we have completed work with the local industry association in support of the government's ban on activity in Water Protection Zones - Regulations are monitored in all business units and reported quarterly to the Executive Committee and the Board

Issue	Description of Impacts[1]	Potential Financial Impact	Management Approach: Business, Strategy, Financial Planning
Short- to Medium-term Transition Risks (0-6 Years)			
Market, Legal and Reputation: Changing Customer Behaviour; Perception of Sector; Changing Market Signals; Exposure to Litigation; Increased Stakeholder Concern	Impact on Financial Position: potential to decrease share price and shareholder equity, impacting the balance sheet and restricting access to or increasing cost of credit of capital and debt These risks are allocated into one category, as they are deeply interconnected. We have seen significant negative perceptions of the oil and natural gas industry prevail over the past several years from various governments, communities, investor associations and other stakeholders. This can impact valuations, restrict licensing and permitting, lead to stakeholder concerns and opposition to our activities, and increase the risk of climate-related litigation. In 2022, however, energy security and affordability issues highlighted the importance of multiple energy forms being part of a deliberately planned energy transition that includes responsible oil and natural gas production – e.g. the European Union's decision to consider natural gas a transition fuel – to provide a bridge while renewable energies are building capacity. We expect current energy security concerns to maintain the need for oil and natural gas production while directing increased capital and urgency towards renewable energy in the short to medium term.	Financially material based on a proxy approach. The impact of decreased consumer confidence and perception is challenging to calculate; however, on a per share basis, the market impact of the loss of $1 per share would be approximately $162.4MM in enterprise value as of March 2022.	Mitigate – Business Model: Our business model prioritizes the responsible production of oil and natural gas to support energy security and accessibility. Our low-carbon strategy includes exploring new and evolving technologies and processes to identify synergistic fits for our business in both traditional and renewable energy production, particularly where have identified potential to repurpose our infrastructure to support the energy transition. We are focusing initially on geothermal and biogas, with early stage exploration of the potential for hydrogen and carbon capture, depending on the jurisdiction. Mitigate – Strategy: Based on stakeholder engagement, Vermilion believes that independent assessments of our operations by third parties demonstrate our responsible approach to production of essential energy. We have sought and achieved limited assurance of our Scope 1, 2 and 3 emissions data; Equitable Origin responsible gas producer certification for 3 sites in our West Pembina region in Canada, the AFNOR CSR Committed label in France, and the Business Working Responsibly Mark in Ireland. Accept: Our Public and Government Relations staff engage with a variety of key stakeholders in all business units to help inform their and our strategy development

Issue	Description of Impacts[1]	Potential Financial Impact	Management Approach: Business, Strategy, Financial Planning
Short- to Medium-term Physical Risks (0-6 Years)			
Acute: Increased Severity of Extreme Weather Events such as Cyclones, Floods, Wildfires, Windstorms	Impact on Operations and Financial Performance: increased direct costs to repair damage, increasing insurance costs as coverage premiums rise, decreased production due to facility shut-ins, both impacting the Income and Cash Flow Statements Impact on Financial Position: potential to decrease asset value, impacting the balance sheet Vermilion owns and operates an offshore platform in the Wandoo field off northwestern Australia, co-owns and operates the Corrib project off the Irish coast, and owns and operates oil fields in the coastal area of SW France. As climate effects such as hotter and drier conditions evolve, increased severe weather events have the potential to directly impact our offshore operations resulting in down time or damage to infrastructure, and can impact the downstream handling capacity of our partners, resulting in a limitation to the distribution and sale of our products. Onshore flooding and wildfires are an identified risk in other locations, including our Calgary corporate office (e.g. flooding occurred in 2013, now mitigated through various government projects) and our field locations (e.g. wildfires are already a known risk in Canada and France).	Financially Material based on Wandoo Platform Probabilistic Modelling (catastrophe model): Based on the value of the Wandoo Platform and a 1-in-10,000-year cyclonic event, the financial implications associated with damage are estimated at $470MM (impact after insurance). Scenario Analysis: The operational and financial impact of shutting-in assets (e.g. due to cyclones) is assessed using our Live Forecasting and Long-Range Planning Tools. E.g., based on 2021 production and netback data, Wandoo's impact would be $0.2MM per day, although business interruption insurance coverage could mitigate this.	Mitigate – Strategy: Our robust asset integrity program maintains our facilities to appropriate design specifications (e.g. at Wandoo, to CAT 5 hurricane force). Via our Emergency Response Plan and business continuity plans, we also have detailed protocols for monitoring, preparing for, and responding to severe weather events. Transfer: We purchase insurance as a mitigative measure to reduce the financial impact associated with damage to our assets due to severe weather events. Accept: We track evolving weather trends, such as cyclone season in Australia, wildfire seasons in Canada and the United States, and winter snowpack levels in Alberta.
Long-term Transition Risks (6-50 Years)			
Policy and Legal and Technology: Substitution of products and services with lower emissions options Mandates on and Regulation of Products and Services: e.g. bans on internal combustion engines, natural gas stoves & heating, etc.	Impact on Financial Performance: decreased sales and revenue of our traditional products, impacting the Income and Cash Flow Statements Impact on Financial Position: potential to decrease asset value, impacting the balance sheet Although we see demand for oil and natural gas remaining robust in the short- to mid-term, it is likely to fall as the energy transition evolves and various alternatives for renewable energy options become technologically and economically feasible and accessible. This could impact the need for our products long-term, post 2030-2035 for oil, particularly as bans such as on ICE vehicles take effect. However, based on long-term demand and transition scenarios[2], demand for natural gas declines significantly less than oil towards 2050, and potentially remains robust as carbon reduction and removal technologies improve and scale up. As 2021 and 2022 have demonstrated, it will be critical to maintain adequate supplies of both oil and natural gas during the energy transition, to provide energy security and affordability.	Dynamic Materiality: could become financial material (2030-2035+) Scenario Analysis: Given the uncertain timeline and progression of the energy transition, and supply-demand dynamics, we are not using a financial forecast for impact. We are, however, identifying and exploring potential opportunities that would mitigate the risk to our product mix.	Mitigate – Business Model Based on our scenario analysis, we identified the need to explore new and evolving technologies and processes to identify synergistic fits for our business in both traditional and renewable energy production. We are pursuing this via our established track record in geothermal energy from produced water, for which our internal expertise in engineering, geoscience and drilling is particularly well suited. We are also carefully investing in early R&D in other areas, such as biogas and the conversion of traditional oil and gas assets to geothermal and hydrogen production, to better understand the long-term potential; our deliberate approach to project development, with stage gates and off-ramps built in, is designed to minimize the risk and capital involved in investing in technology or processes in early stages of development.

Issue	Description of Impacts[1]	Potential Financial Impact	Management Approach: Business, Strategy, Financial Planning
Long-term Physical Risks (6-50 Years)			
Chronic: Changes in Temperature Extremes, Including Rising Mean Temperatures	Impact on Operations and Financial Performance: increased direct costs, impacting the Income and Cash Flow Statements Impact on Financial Position: potential to decrease asset value, impacting the balance sheet A decrease or increase in temperature extremes (i.e. lower seasonal lows, higher seasonal highs) could result in an increase in fuel gas for a variety of equipment, along with additional equipment (e.g. building and line heaters). This would require additional resources (infrastructure) and increase emissions. Temperature extremes could also increase capital costs associated with drilling, completion and workover operations due to increased timelines, decreased productivity, equipment breakdown, etc. For example, warmer winters decrease our ability to access lands and increase construction capital requirements for our Canadian operations.	Not currently forecast as financially or operationally material Modelling: The financial implications on an annual basis are difficult to quantify; however, the most significant financial implications would result from shutdowns in drilling or completions locations. The estimated average cost is $0.14MM per day of delay in Canada.	Mitigate – Strategy: We reduce the potential impact related to access in remote assets by using multi-well pads wherever possible. This significantly decreases capital considerations in the event that limited frost days occurred, while reducing the aerial impact of these activities, minimizing habitat fragmentation and reducing carbon emissions associated with lease construction and equipment mobilization. We also plan our activity at appropriate times of year as weather conditions allow (i.e drill in winter if summer temps become extreme) Accept: As weather extremes cannot be controlled, we will continue to monitor this risk in all our jurisdictions on a case-by-case basis.
Chronic: Changes In Precipitation Patterns and Extreme Variability in Weather Patterns	Impact on Operations and Financial Performance: increased direct costs, impacting the Income and Cash Flow Statements Impact on Financial Position: potential to decrease asset value, impacting the balance sheet Vermilion holds assets inland, in coastal regions and offshore where a change in precipitation could negatively impact operations due to drought or flooding. Flooding could result in limited access to locations / facilities, and poses a risk to our corporate headquarters (significantly mitigated since flooding occurred 2013). Alternatively, drought conditions could impact the availability of surface and / or groundwater, which Vermilion, in part, relies on for drilling and completion activities, and could negatively impact forecasted growth by increasing timelines and capital costs to bring new infrastructure onto production. This could also increase the likelihood of wildfires.	Financially material Asset-specific hazard identification: The financial implications of a one-time event (e.g. wildfire) are assessed on a case-specific basis, and are estimated to be greater than $10MM.	Mitigate – Strategy: - As these incidents are out of Vermilion's control, we take all measures possible to ensure effective emergency response to extreme weather events, to ensure the protection of the health and safety of our workers, contractors and the public, the protection of the environment and limitation of financial impact of the event. - In the case of a longer term extreme precipitation event or drought, Vermilion would implement water management programs to reduce our reliance on fresh water sources to limit the potential impact on operations. - In the event of a wildfire, we would eliminate water diversion and/or shut-in production to protect the health and safety of our workers, and the community. - We invest >$0.5MM in emergency response training annually. Transfer: We maintain insurance coverage for natural disasters such as wildfires with specific deductibles, under which we self-insure.
Chronic: Rising Sea Levels	Impact on Operations and Financial Performance: increased direct costs, impacting the Income and Cash Flow Statements Impact on Financial Position: potential to decrease asset value, impacting the balance sheet Vermilion owns and operates assets in the Netherlands, where we have assessed the potential risk associated with rising sea levels. This could physically impact our operations due to issues such as flooding, transportation difficulties and supply chain interruptions. Rising sea levels also pose a threat related to the salinization of groundwater.	Not currently forecast as financially or operationally material in the short or medium term; could potentially be material in the longer term Asset-specific hazard identification: We have estimated that a rise in sea level could have a maximum foreseeable financial impact of $107MM at our main gas processing facility Garijp (GTC) in the Netherlands, caused by an extreme 1-in-10,000-years tide/extreme wind event, and including physical damage, environmental clean-up, third-party liability and business interruption.	Transfer: We maintain insurance coverage for natural disasters such as flooding with specific deductibles, under which we self-insure. Accept: Other than conventional berm protection, there is no measure available to protect Vermilion's assets in the Netherlands if water levels rise to a level resulting in one of our main facilities being flooded by sea water. Based on Vermilion's assessment of the probability of these events occurring over the next 5 years being less than 0.05%, we have accepted this level of risk exposure. We review this risk in our annual risk management process.

Issue	Description of Impacts[1]	Potential Financial Impact	Management Approach: Business, Strategy, Financial Planning
Short-term Opportunities (0-3 Years)			
Products and Services, Energy Source and Resilience: Development of New and Low-Emission Products and Services through R&D and Innovation; use of new technologies; and participation in renewable energy programs	Impact on Financial Performance: increased R&D costs and increased revenue, impacting the Income and Cash Flow Statements Impact on Financial Position: potential to decrease liabilities, impacting the balance sheet The long-term transitional risk associated with the substitution of low-carbon products, also provides an opportunity to participate in their development. For example, we are evaluating the potential to reuse our current infrastructure to provide alternative products, such as biogas or hydrogen, and to develop new products such as geothermal energy, creating new revenue streams. An example of this opportunity is the geothermal heat we are providing from the produced water in our oil operations in France to support sustainable agriculture, residential and education projects near our operations.	Potential for Financial Materiality These opportunities are medium- to long-term from the perspective of revenue generation, but short-term for the launch of R&D. As they are in the early stages of assessment, it is difficult to quantify the financial impact, but it is estimated at up to $2.0MM per year in revenue. Potential also exists for significant cost adjustments to ARO, as assets slated for abandonment would be repurposed to enable them to continue to generate energy.	Business Model: We are leveraging our technical experts and partnerships to provide input into alternative and renewable energy projects as they are identified. An example of the development of low emission goods/services is our France-based industry partnership with Avenia to expand the use of geothermal energy production in oil production, along with memberships in geothermal associations in Netherlands and Germany. We have also developed clear criteria for approving the move of these ideas into and through our project development process, which provides clear gates and criteria for considering and implementing such projects. Another example is our partnership in Hylight, a 3-year project in Ireland that aims to provide the knowledge, data and tools to guide the cost-effective decarbonisation and roadmaps for sustainable large-scale implementation of hydrogen technologies.
Markets: Access to New Markets	Impact on Financial Performance: increased revenue, impacting the Income and Cash Flow Statements More stringent global measures to reduce emissions from individual ships by 30% by 2030, established through amendments to MARPOL Annex VI, came into force on Jan 1 2020, limiting the sulphur content of bunker fuel to a maximum of 0.5%. Vermilion's Australian Wando facility produces 3,810 bbl/d of low sulphur crude oil that meets the needs of refineries to comply with IMO regulations.	Our Wandoo crude is primarily sold to lubricant producers; however, greater proportions may become available to the low sulphur fuel oil market for refining or blending directly in 2023. A financial impact would be available closer to that date.	Strategy: Vermilion continues to access local markets for our low sulphur production. Financial Planning: Our Marketing group works with Operations to ensure Vermilion meets its contractual obligation with our buyers in terms of volumes, delivery dates and crude quality, thus maintaining our reputation of being a reliable source of low sulphur feedstock to refineries.
Products and Services: Ability to Diversify Business Activities; Shift in Consumer Preferences	Impact on Financial Performance: increased direct costs of certification, increased revenue from premium pricing, impacting the Income and Cash Flow Statements Impact on Financial Position: potential to increase asset value, impacting the balance sheet Vermilion maintains a diverse, stable global portfolio of oil and gas assets. Our strong record of safe and socially conscious development of energy resources has provided opportunities to access and develop these resources. We see our commitment to sustainability as core to our business, which has provided important organizational focus on emissions quantification and management. As consumers become more aware of and involved in the selection of their energy sources and associated carbon intensity, we believe that Vermilion will continue to be a producer of choice, providing us with opportunities not available to other organizations.	Potential for Financial Materiality The financial impact of changing consumer preferences is difficult to quantify. We foresee revenue opportunities in two distinct areas. 1. In our customers selecting premium energy products, with these products demanding a higher price than other energy sources on the market; currently we estimate the potential impact of premium pricing in the long-term to be $1-5 per BOE, or $31MM/year based on $1 at 2021 production levels. 2. Access to more stringent markets, supported by our environmental and sustainability performance. Vermilion has entered into the German, Hungarian, Croatian and Slovak oil and gas operations in the past decade, which our sustainability performance has supported.	Strategy: Based on stakeholder engagement, Vermilion believes that independent assessments of our operations by third parties demonstrate our responsible approach to production of essential energy, and have the potential to generate a premium. As a result, we have sought and achieved Equitable Origin responsible gas producer certification for 3 of our Canadian sites, the AFNOR CSR Committed label in France, and the Business Working Responsibly mark in Ireland. We are currently assessing the potential to expand these certifications and our use of methane performance certificates; while we are currently realizing a small premium associated with the sale of responsibly produced natural gas, future consumer preferences may demand that all fuels be certified – we will be in a strong position should that evolve.

Issue	Description of Impacts[1]	Potential Financial Impact	Management Approach: Business, Strategy, Financial Planning
Medium-term Opportunities (3-6 Years)			
Energy Source: Voluntary Participation in Carbon Market	Impact on Financial Performance: increased revenue, impacting the Income and Cash Flow Statements Impact on Financial Position: potential to increase asset value, impacting the balance sheet Under the EU ETS Directive in effect to 2030, we anticipate an active demand market for the offset credits generated at some of Vermilion's sustainability initiatives. This shift in the cap and trade scheme may provide opportunities for Vermilion to generate certified energy reduction / offset credits through our geothermal projects in France.	Vermilion is not accounting for any short term financial impact while the carbon market and international regulations around carbon offsets are developed through 2022-23 and beyond. This may move into a short-term opportunity based on the final versions.	Strategy: We are currently evaluating the benefit that certified offset credits from various emission reduction projects across our operations could provide. Examples of projects that have the potential to generate credits include four geothermal co-production projects in France. Vermilion's project assessment framework is applied to each identified opportunity, including considerations associated with emissions offset.
Products and Services: Shift in Consumer Preferences	Impact on Financial Performance: increased revenue, impacting the Income and Cash Flow Statements Impact on Financial Position: potential to increase asset value, impacting the balance sheet Under the Canadian Environmental Protection Act and based on commitments made by the Canadian and Alberta governments and energy utilities relating to COP21, coal-fired power generation is being replaced by with natural gas. Based on this and with a number of power generating facilities in Alberta nearing the end of their service life, the demand for natural gas is likely to increase due to increased use of combined cycle gas turbine (CCGT) power generation.	The short term impact of this change on gas pricing is anticipated to be low, increasing to medium in the medium- to long-term; however, it is difficult to isolate it from other forces in the energy pricing market. As a natural gas producer, Vermilion would benefit from an increase in marketable prices for natural gas in our Canadian operations. Based on 2021 production, an increase in gas price of $1 per MCF would increase annual sales by approximately $85MM.	Strategy: As we move further into the energy transition, we foresee natural gas playing an impactful role as a less carbon intense fuel than coal. Vermilion continues to focus on the identification of resources and assets where we have the opportunity to apply our industry leading expertise to optimize production while reducing emissions. An example of our strategy to realize this opportunity is our asset base in Alberta, which currently includes a large liquids rich gas play, and our 2022 acquisition of Leucrotta, providing us with access to natural gas in the Montney in NE British Columbia and NW Alberta. Vermilion's marketing team also actively pursues options for our natural gas production that enable Vermilion to achieve the optimum netbacks on production.
Long-term Opportunities (6-50 Years)			
Energy Source: Shift Toward Decentralized Energy Generation	Impact on Financial Performance: increased revenue, impacting the Income and Cash Flow Statements Impact on Financial Position: potential to increase asset value, impacting the balance sheet The carbon intensity of energy used around the world has a direct relationship to where the energy product was generated. Vermilion's business unit structure in Europe supports production and distribution of energy products into local markets. This strategy results in the significant reduction of the carbon footprint of our energy when compared to non-local sources.	On an operating netback (sales) basis, based on 2021 data, the financial premium of our non-Canadian assets was $525MM	Vermilion continues to assess where we can access local markets for our production, and to communicate to regional and national governments the importance of domestic supply to support energy security and affordability. We also have exploration and development programs in regions with relatively low energy production as compared to consumption (e.g. Hungary).

Notes:

(1) Risk summary is based on our fiscal year 2021 environmental reporting. Fiscal year 2022 environmental reporting will be available in mid-2023.

(2) Executive summary – World Energy Outlook 2021 – Analysis - IEA ; Global Energy Outlook 2022: Turning Points and Tension in the Energy Transition (rff.org)

Resilience of the Company's Strategy

Our sustainability strategy rests on three pillars: Carbon, Conservation and Community.

Carbon

Countries in all of our operating regions are implementing policies to create a low-carbon future for the world's economy, consistent with a 1.5-2C or lower scenario. As a global energy producer, we have an opportunity to be part of the solution: to help ensure the supply of safe, reliable and affordable energy during this transition. The Board of Directors and senior leadership therefore responded to our risk and opportunity identification using a robust scenario analysis.

Vermilion examined two energy transitions scenarios from the World Economic Forum. These compared a Gradual versus Rapid low-carbon transition based on inputs that included the International Energy Agency's New Policies Scenario (Gradual) and Sustainable Development Scenario (Rapid), which meets the Paris Agreement's goal to limit global temperature increases to 1.5 to 2ºC. Vermilion examined key factors impacting the speed of the transition – including the influence of new energy technologies; potential speed of their adoption; anticipated changes in policy and regulation; and emerging market pathways such as India – and resulting factors that could impact the company, including economics (demand, supply, consumer behaviour, and costs of energy); technological advancement; capital availability; government policy; and Company reputation. Among these, government policy was seen as most influential in the near to mid-term.

We applied these findings to Vermilion's strategy to 2050 and beyond, described below. In particular, the scenario analysis led us to develop two emission-related targets that were announced in 2021: an aspirational commitment to net zero emissions in our own operations, including Scope 1 and Scope 2 emissions, by 2050, and a near-term target to reduce Scope 1 emissions intensity from our operations by 15 to 20% by 2025, using a baseline year of 2019. See Metrics and Targets, below, for more information.

Our strategy to ensure our resilience under various scenarios rests on three emissions-related activities:

Focusing on efficient and responsible production of oil and natural gas, viewing emissions as potential energy source:

- **Lower carbon fuels.** Since 2012, we have shifted our production mix towards natural gas as a cleaner burning fuel than other fossil fuels. We also sell our fuels within the country of production wherever possible, reducing the carbon footprint associated with transportation of the fuel to consumers while increasing national energy security.
- **Socially responsible fuels.** We are committed to ensuring that our products are produced in an environmentally and socially responsible manner, respecting worker rights and community engagement. We operate in regions noted for their stable, well-developed fiscal and regulatory policies related to oil and gas exploration and development, and for their robust health, safety, environmental and human rights legislation.
- **Transparency and reporting.** We have established a strong record of reporting on greenhouse gas emissions, energy usage and other key environmental metrics, which has supported our emission reduction targets.

Implementing technically and economically feasible options for emission reduction, covering combustion, flaring, venting and fugitive emissions:

- **Greater energy efficiency.** Many energy and operational efficiency initiatives go hand-in-hand, which in turn helps us minimize our carbon footprint and reduce greenhouse gas emissions.
- **Lower greenhouse gas emission intensity.** We are committed to reducing the greenhouse gas emissions associated with our production, with particular focus on methane.

Exploring new and evolving technologies and processes to identify synergistic fits for our business in both traditional and renewable energy production: Alternative energy. We are continuing to develop our knowledge and use of alternative energy sources, including geothermal energy, for which our internal expertise in engineering, geoscience and drilling is particularly well suited. This work has begun with the geothermal potential of our produced water, supporting a circular

economy model that conserves, reuses and recycles resources to better protect our environment. It is also expanding into areas such as biogas and the conversion of traditional oil and gas assets to geothermal and hydrogen production.

In addition, we identified two further pillars of our sustainability strategy that are integral to managing sustainability- and climate-related issues:

Conservation

We are committed to reducing the impact our operations have, beginning with regulatory compliance across all business units. Our conservation efforts are further focused in three areas:

Water: We recognize water as a basic human right, and as a vital resource that is shared among many stakeholders in our communities. We are therefore committed to protecting both the supply and the quality of water sources in our areas of operation by:

- Proactively preventing harm and supporting healthy surface and groundwater bodies
- Reducing potable and freshwater usage to the lowest level practical, and
- Taking a lifecycle and circular economy approach to water, exploring opportunities to reuse and recycle products such as produced water

Asset Retirement Obligations: We are adapting our long-term Asset Retirement Obligation management to include revitalizing or reusing assets to benefit our environment and our communities.

Biodiversity: We are focusing on protecting the species and habitats around us by proactively identifying biodiversity risks and opportunities, and implementing associated plans.

Community

Our communities comprise a wide diversity of people and organizations, but they have one key thing in common: they care deeply about the safety, environmental stewardship and corporate citizenship that we bring to our local operations. In addition, our people care deeply about their communities - whether we work there or live there, these are the places we call home. We therefore steward our operations and relationships to demonstrate our commitment to being a responsible producer and a valued and trusted neighbor and business partner, including:

- **Transparency** with respect to safe and environmentally responsible operations, including our potential impacts on local communities
- Maintaining **strong, genuine relationships** with our communities, with engagement based on respect, listening and openness, and
- Creating **shared value** focused on local economic and social development.

Risk Management

Vermilion's board and senior leadership provide risk oversight, including for sustainability-related risks such as climate.[102-30]

Effective risk and crisis management positions the company for better resiliency from the present to the future. We use a multi-layered approach to ensure identification, awareness and effective management of our business-related risks, including sustainability risks. This includes identifying business opportunities that may arise from changing conditions.

Sustainability-related risks and opportunities, including those related to climate, are integrated into multi-disciplinary Company-wide risk identification, assessment, and management processes as part of our ERM system, based on the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework.

This provides an integrated approach to managing risk as it impacts strategy and performance, and includes Operational, Market & Financial, Credit, Organizational, Political, Regulatory Compliance, Strategic and Reputational, and Sustainability categories.

Identifying and Assessing Risks

Risk management is the responsibility of the Board and the Executive Committee based on a Top-Down, Bottom-Up approach to engage all staff. Top-Down begins with our Board and its committees with clear terms of reference, including oversight for identification and management of specific allocations of risk type. This is translated into action by our Executive Committee, which reviews and manages the ERM process through implementation of associated policies and procedures.

Our staff help develop systems, standards and procedures. Bottom-Up is how staff implement, maintain and improve risk management processes, applying the hazard-risk-mitigation process in every part of our business.

Risks are identified by key staff across our Company, including our Operations, Finance, Health, Safety and Environment, Economics, Government and Public Relations, and Sustainability teams at corporate, business unit and asset levels. These employees have significant experience, and use a wide array of inputs, including operational and facility assessments, technical and research reports, external stakeholder organizations, government policy and regulation changes, industry initiatives, communities and landowners, and non-governmental entities.

The results are incorporated into our Corporate Risk Register, which provides a consistent framework to ensure the effective tracking and communication of our material risks. Using our Risk Matrix as a prioritization tool, teams assess severity, likelihood, speed of onset, and vulnerability using scales from 1 to 5 for each factor, based on human, environment, financial, social license and cybersecurity impacts.

Every risk case has also been assessed to determine where sustainability- or climate-related risk is a contributing factor. The results are provided annually at minimum to senior management, the Executive Committee and the Board and its Committees as appropriate, who further assess the risks including interdependencies.

Our sustainability materiality analysis, which assesses issues with impact for both the Company and our key stakeholders, is integrated into our ERM system using the Corporate Risk Register through a collaboration between our Finance, HSE, Operations and Sustainability teams.

Managing Risks

Our risk management approach focuses on reducing the risk to a level as low as reasonably practicable, accepting the risk, and/or controlling it (such as insuring it). For example, if direct mitigation is not possible (e.g. changes in temperature extremes), we would adapt our business processes to reduce the potential impact (e.g. changing work hours to avoid extreme mid-day heat). In other situations (e.g. increasing risk of flood), we may take measures to protect against the risk (e.g. flood controls) while also insuring our operations.

Financial impact is deemed substantive if it could cause a business loss of more than $10 million CAD (unrisked and before mitigation/recovery instruments). Substantive is defined further using the following thresholds:

- Has persistent but reversible, long-term effects on habitat, ecological communities, land, air, or water. Escalations include irreversible effects on these elements, persistent reduction in sensitive ecosystem function, or effects beyond a regional or operations scale.
- Requires a specific asset to be shut in for unknown

duration during regulatory or legal proceedings. Escalations include the permanent withdrawal of authority to operate.
- Reputational damage is national or international, or stakeholder concerns lead to regional or more widespread interruption of operations.

Emissions Long-Range Planning

To support climate risk identification and management, we previously developed a Carbon Liability Assessment Tool, with Scope 1 emissions quantification and regulatory information for each business unit. We assessed the price of carbon on both a realized cost and shadow pricing basis, and identified likely carbon pricing scenarios for all our operating areas.

In 2021 and 2022, we developed and piloted a an Emissions Long-Range Planning Tool, which uses our 10-year projections of production to estimate our Scope 1 and 2 emissions, associated carbon taxes, and impacts of emission reduction projects. We are now using this to support our planning of production, capital allocation, budgeting, target setting and merger, acquisition and divestment decisions.

Targets & Metrics

Sustainability- and Climate-Related Risks and Opportunities

Our sustainability reporting describes significant economic, environmental, social and governance measures, which are reported with reference to CDP, SASB and GRI. These include but are not limited to:

- **Climate:** energy consumption and intensity; investment in and generation of renewable energy; greenhouse gas emission and intensity, including flaring and venting, and avoided emissions; and water withdrawal, including from areas of high baseline water stress, and discharge.
- **Environment:** Waste generation and management; Asset integrity and spills; and Environmental investment
- **Social:** Health and Safety; People; and Community investment
- **Governance:** Ethics

These metrics contribute to our performance for CDP Climate, S&P Global Corporate Assessment and Sustainalytics scores, which comprise 10% of the Corporate Performance Scorecard for our Long-term Incentive Plan. In addition, HSE metrics comprise 25% of the scorecard for our Short-Term Incentive Plan. These are industry-typical leading and lagging indicators reflective of responsible, safe and sustainable operations:

- Leading indicators (inputs) include elements such as HSE inspections and audits, finding closeout, compliance and regulatory inspections, and emergency response exercises.
- Lagging indicators (outputs) include elements such as lost time incidents, total recordable injuries, motor vehicle accidents, and liquid spills and releases. These plans apply to all employees, including our executive team.

Thus, sustainability- and climate-related performance is linked not only to executive but also all employee compensation, given that we use the same scorecard for every staff member. We report on this externally through our Proxy Statement and Information Circular each year.

We also track carbon pricing, and have identified actual and likely pricing scenarios for all of our operations based on current government policies and published research relating to the Paris Agreement. For example, in Canada, the 2021 carbon tax was $40 per tCO2e, and in Ireland, carbon pricing was 52 € per tCO2e. Further information is available in the Strategy section and in our CDP Climate submission, available at sustainability.vermilionenergy.com in the Download Reports section.

In addition, we benchmark our performance via third-party ESG rating agencies, including:

- CDP Climate Change and Water Security: CDP Climate and Water scores of "B" in 2021 have us tied for the top decile for our industry
- ISS ESG QualityScore: Recognized as a leader in managing risk in our industry with a decile rating of "1" for Environmental and "2' for Social practices. A decile score of "1" indicates lower governance risk, while "10" indicates higher risk.
- MSCI ESG Rating: In 2022, Vermilion maintained our AA rating.
- S&P Global Corporate Sustainability Assessment: Vermilion was top of our peer group in the 2021 Assessment, and was selected for inclusion in The Sustainability Yearbook 2022, reflecting sustainability performance within the top 15% of our industry.
- Sustainalytics ESG Risk Rating, which is available on the Sustainalytics website.

Scope 1, 2 and 3 GHG Emissions Disclosure

We report Scopes 1, 2 and 3 emissions, which are externally verified under ISO 14064-3. Historical, corporate and business unit data can be found in our Performance Metrics section.

Targets and Performance

Vermilion announced two emission-related targets in 2021:

- A commitment to net zero emissions in our own operations, including Scope 1 and Scope 2 emissions, by 2050. We are transparent that this is an aspirational goal, and that we will build the plan to achieve this target over time.
- As a first step, we set a near-term target to reduce Scope 1 emissions intensity from our operations by 15 to 20% by 2025, using a baseline year of 2019. We intend to set new targets

every five years at minimum, building on this foundation while exploring broader options, including the potential to reduce Scope 3 emissions.

We developed, and the Board approved, these targets following our climate scenario analysis and extensive internal assessment. There are significant inherent uncertainties in how the energy transition will accelerate over the next three decades. Our intention is to manage these by focusing on responsible production of essential oil and natural gas for as long as these forms of energy are needed, while developing opportunities in other areas that are an economic and synergistic fit for our business.

Committing to an aspirational net zero target was important, but setting a company-wide nearer term target as the first step in creating a clear pathway was even more so. We looked at our own operations – from how we manage emissions data to options for emission reduction – and at how our peers and the majors are approaching this. From, this, we identified emissions intensities and opportunities for reduction within our business units, and set our second target.

This will be achieved, starting with our business units with higher emissions intensities, with an initial focus on efficiency, including process changes, venting reductions, instrumentation upgrades from gas to air and power efficiency options, along with improved metering and field measurements. Going forward, we will be setting new targets every five years, building on this foundation while exploring broader options, including the potential to reduce Scope 3 emissions.

We will track our performance using Scope 1 and 2 absolute and intensity emission metrics.

Details of our continued progress against these and previous targets are provided here:

Category	Target	Progress (see Energy and Emissions Reduction page for details)
Scope 1 – flaring and venting	Set in 2014: Reduce flaring emissions at our light-oil assets in southeast Saskatchewan acquired in 2014 by 50% by 2020	Achieved above target: 88% reduction in annual emissions as of end 2020
Scope 1 - methane	Set in 2014: Methane reduction target included in the target above to reduce flaring emissions at our light-oil assets in southeast Saskatchewan acquired in 2014 by 50% by 2020	Achieved above target: 86% reduction in annual methane emissions as of end of 2020
Scope 1 – flaring and venting	Set in 2014: Reduce flaring emissions at one of our major facilities in France by 65% by 2015	Achieved: 65% reduction in emissions (avoiding the flaring of 14,500 tCO2e annually) by implementing a gas export system
Scope 2 – renewable energy	Set in 2015: Exceed 5% of our total power consumption coming from renewable sources (and replacing traditionally generated electricity) by 2017	Achieved above target: Reduced Scope 2 emissions in Netherlands from 41% of our 2015 gross Scope 2 emissions to 2% in 2016 and 0% in 2017. This program has been extended through 2022, and was adopted in our Ireland Business Unit in 2021.
Renewable Heat Energy Target	Set in 2015: Generate 31,380MWh of renewable geothermal energy annually in our France Business Unit from our Parentis battery's tomato greenhouse project until at least 2035	Above Target: 2021 production was 57,985 MWh of geothermal energy primarily from the Parentis site, with additional input from the La Teste site, and two other sites that launched in late 2021
Scope 1- flaring and venting	Set in 2018: reduce the flaring and venting emissions, including methane, associated with the Spartan assets acquired in 2018 by 50% by 2024	On track: 55% reduction achieved in 2021
Scope 1 – methane	Set in 2018: Similar to our 2014 acquisition of Elkhorn, this is a proportional target associated with our program to reduce methane emissions for our 2018 acquisition of Spartan by 50% by 2024.	On track: 57% achieved in 2021
Scope 1 GHG emissions	Set in 2021: Reduce Scope 1 intensity by 15-20% from our 2019 baseline year by 2025.	On track: 5% reduction achieved in 2021

Approach to Methane Emissions

As one of the highest-impact greenhouse gases, methane is an important element in Vermilion's focus on climate-related risks and opportunities, particularly in reducing our greenhouse gas emissions from natural gas production. The economic viability of methane leakage prevention is important, with two factors influencing continuing developments: significant advancements in technology – fostered by government commitments surrounding climate change – and the cost of carbon. Combined, these will act to improve the technical ability and abatement costs associated with methane leak detection and the updating of older infrastructure that is prone to sources of methane.

We are actively pursuing options to reduce our methane emissions, supported by commitments from many of our operating regions. Alberta, for example was the first regional government in North America to commit to a methane emissions reduction target for the oil and gas sector – 45% by 2025 – and France has signed on to the World Bank's Zero Routine Flaring by 2030 Initiative.

Understanding that this is a developing area, we have teams in each business unit that monitor regulatory development and share learnings with other business unit teams and corporate groups. We continue to assess our operations to determine areas where we can prevent methane releases and have a positive impact on our Scope 1 emission reduction target. This also supports our participation in both voluntary and regulatory-driven methane reduction programs.

Sources and Detection

Similar to any upstream oil and gas operation, the majority of methane emissions from Vermilion's operations stem from venting, flaring (which typically achieves 98% combustion efficiency), storage and process/instrumentation.

Vermilion has emissions quantification programs in all operated business units. We also have fugitive emission programs in place that are managed through our operations groups in each business unit, with the exception of our offshore platform in our Australia operation (an oil asset with no natural gas production infrastructure). Our Leak Detection and Repair (LDAR) program varies between business units:

Canada: An expanded LDAR program was implemented in 2020, with effectively 100% of our operated Alberta facilities and multi-well pads now assessed annually using optical gas imaging (OGI) technology. At our predominantly oil-producing Saskatchewan assets, OGI surveys are undertaken annually at our larger facilities in accordance with regulatory requirements. Routine checks for natural gas releases using a Forward-looking InfraRed (FLIR) camera are completed by operations personnel at our smaller Saskatchewan assets in conjunction with regular field visits. In addition to thermal imaging, Auditory, Visual and Olfactory (AVO) inspections are a standard component of operator field visits. Targeted identification of leaks during facilities work is also built into all turnaround activities.

France: Quantitative LDAR programs vary annually. As this is an oil-dominated asset, the volume of natural gas and associated CH4 emitted is low. All operated well clusters are checked at least daily, and twice daily in more sensitive areas such as Parentis Lake. Pipeline routes are surveyed at weekly or monthly intervals depending on the sensitivity of the pipeline location and pipeline type. Process safety equipment, including pressure sensors and hydrocarbon detection equipment, is also installed on wellheads, cellars and pipeline infrastructure to detect leaks, shut-in production and alert operations personnel.

Netherlands: This natural gas-producing asset has a robust LDAR program, with effectively 100% of accessible flanges and potential leak points screened annually using thermal imaging technology.

Australia: This is an oil asset with no natural gas production infrastructure. Any associated gas is either utilized in on-platform processes to displace fuels we would have to bring from the mainland, such as diesel, or maintained within the process and reinjected into the formation it was produced from. While we do not complete a formal LDAR program for natural gas, any significant potential leak sources would be identified by our continuous gas detection monitoring system (line of sight and point source) or through on-platform crew visual inspections. Where required, equipment is repaired and pressure/leak tested prior to return to service.

United States: This predominantly oil asset has a comprehensive LDAR program that includes initial and semi-annual monitoring for fugitive emissions using a thermal camera at all well sites that are subject to EPA and/or Wyoming air permit requirements. In addition to point source identification, Vermilion has permanently mounted monitoring equipment at our major facilities that checks for the presence of natural gas outside of the process on an ongoing basis.

Germany: All producing oil and disposal wells are thoroughly checked at least twice per week. Wells that are not in production are checked monthly. In our operated gas assets, all well sites and facilities are checked five times per week. During these checks, all accessible flange connections are visually inspected for leaks. Field and transportation pipelines in our operated oil assets are inspected once per week in populated areas and once per month in unpopulated areas. Pipeline routes in our operated gas assets are checked every two months by walking in populated areas, and twice per year in unpopulated areas in accordance with regulatory requirements. Oil and gas transportation pipelines are also helicopter surveyed on a biweekly basis.

Ireland: In the first year of operation, a Differential Absorption LIDAR (DIAL) Survey was completed to survey for methane and VOC emissions. No significant emissions were observed from the areas measured. OGI surveys are completed on Corrib on a bi-annual basis and cover approximately 80% of accessible leak points. All identified leaks are managed through the operations weeps and seeps repair program. To date, 80% of all identified leaks are below the measurable leak detection rate for the High Flow Sampler.

Energy and Emissions Management

The following projects highlight our progress in addressing energy efficiency and emissions reduction.
302-4 305-5

Scope 1 Emissions

Reducing Flaring and Venting in Southeast Saskatchewan

Following the 2014 purchase of light-oil assets in Southeast Saskatchewan, we made important improvements that reflect our focus on safety, sustainability, and operational excellence. These included a target to reduce flaring and venting emissions by 50% by 2020, compared to a baseline of 2014. This was achieved above target, at 88%.

In May 2018, Vermilion completed the acquisition of Spartan Energy Corp. This increased Canadian production by approximately 30% relative to 2017. Similar to the 2014 acquisition, we set a target to reduce associated flaring and venting emissions by 50% by 2024, compared to 2018. This is being accomplished through a variety of gas conservation and recovery initiatives, including the construction of new infrastructure and implementation of enhanced operational practices and technology, and is currently tracking beyond the target:

- Reduced absolute emissions/year by approximately 186,231 tCO2e, or 55% (compared to 2018 baseline of 340,926)
- Reduced absolute methane emissions/year by 78,189 tCO1e, or 57% (compared to 2018 baseline of 136,714)

These assets would have been in production regardless of whether we were the operators. Our philosophy is that if we bring higher emissions profiles into the company, we seek to improve them.

Carbon Capture and Storage in Weyburn, Saskatchewan

We have a non-operating financial interest in the Weyburn-Midale Carbon Capture and Storage facility in Saskatchewan. This is one of the world's largest carbon capture, utilization and storage projects, bringing in CO2 from a utility in North Dakota to use in enhanced oil recovery (EOR), after which the CO2 remains permanently sequestered in the field. In 2021, our partnership accounted for 2,065 bbls day, or approximately 4% of our total production on an equity basis.

CNG Replacement for Diesel and Propane in Canada

In 2020, our Canadian operations worked with our vendors to trial the replacement of diesel or propane with compressed natural gas (CNG) for boilers and water heating for the drilling program in Alberta. This provided cost savings while also reducing CO2 emissions by 27% for the program: 380 Tonnes, which is equivalent to taking 82 passenger vehicles off the road for a year. The project has therefore continued in our drilling and completions program.

Given the success of the trial, the project was continued into 2021 with CNG now representing approximately 20% of our drilling and completions fuel, on an energy content basis.

Power Generating Replacement in Canada

We are replacing traditional thermoelectric (TEG) power generating devices at remote production sites with hybrid solar/methanol fuel cell units. Unlike TEG units which run (and therefore consume fuel) continuously, the hybrid units run on demand only. Based on manufactures specifications, this reduction in operating time is expected to result in a greater than 99% emissions reduction in relation to the TEG units.

Between 2017 and 2020, a total of 35 EFOY units were installed at 12 locations in Alberta. Based on the annual energy generation rates and a specified emissions reduction of approximately 8.2 kg CO2e/KWh, the operating EFOY units represented an estimated CO2e savings of approximately 100 tonnes in 2021.

Additional Projects

Continuing a project initiated in 2019, we converted an additional 69 high-bleed pneumatic devices to low-bleed units in 2020. Based on the equipment supplier's data, this is expected to reduce vented emissions by approximately 4,804 tCO2e/year.

Installation of a HB2LB Pneumatic device in Canada in 2020 with an estimated reduction of 40,600 tonnes/yr CO2 equivalent.

We completed the installation of nine solar powered chemical injection pumps at our well site facilities in Alberta (fully funded by provincial grants). This project is expected to reduce Vermilion's emissions by 9,000 tCO2e/year.

Flaring and Venting

Gas Micro-Turbines

France: At our Vic Bilh site in 2021, we successfully piloted the use of micro-turbines that consume natural gas that would otherwise need to be incinerated. Since commissioning, the turbines have produced an average of 258 KWh and a maximum of 395 KWh, out of the 570 KWh required to operate the two oil wells associated with the gas byproduct, thus also decreasing our use of the national grid.

Incinerator Technology

France: At our battery in Parentis, where no regional gas gathering infrastructure exists to tie in our gas, Vermilion has installed high efficiency incinerator technology that has significantly reduced flaring while resulting in no noise, vibration or smoke. Because the incinerator runs at a much higher temperature (900°C instead of 400-500°C) and combusts the gas in a much taller, 9-metre stack, significantly more of the gases – such as methane, sulphur oxides and nitrogen oxides – are safely incinerated, minimizing the gas that has to be flared.

Scope 2 Emissions

ISO 50001 Certification

Germany: Our German business unit is certified annually under ISO 50001 for Energy Management. This Standard provides a framework for developing, implementing and maintaining an energy management system that supports continual improvement in the efficient use of energy. We have developed an energy management practice that includes strategic planning, communication, procurement and design, verification, monitoring, internal audits, and corrective actions. As part of the certification process, we set energy reduction targets, and are externally audited on our progress.

Purchase of Green Power

Netherlands: In 2016, Vermilion began purchasing 100% green power via Guarantees of Origin from our largest power provider. The Netherlands accounted for approximately 41% of Vermilion's gross Scope 2 emissions in 2015, and for 0% beginning in 2017. We have continued this program through 2022.

Ireland: We began purchasing power from 100% renewable sources via our electricity provider in 2021.

Power Efficiency

Canada: Replacement of traditional thermoelectric (TEG) power generating devices at remote production sites to hybrid solar/ methanol fuel cell units: Unlike TEG units that run (and therefore consume fuel) continuously, the hybrid units run on demand only. Based on manufacturer specifications, this reduction in operating time is expected to result in a greater than 99% emissions reduction in relation to the TEG units.

Between 2017 and 2020, a total of 35 EFOY units were installed at 12 locations in Alberta. Based on the annual energy generation rates and a specified emissions reduction of approximately 8.2 kg CO2e/KWh, the operating EFOY units represented an estimated CO2e savings of approximately 100 tonnes in 2021.

Use of Solar Power

Canada: We have a program to install pump-off controllers at well sites so that the pump only operates when enough fluid is present. Annually, this is expected to reduce power consumption by approximately 17%, resulting in an estimated 10,000 kWh saving per year per well.

Additionally, an initial, full-scale trial of a solar remote power generating (EPODTM) unit was initiated in 2021. Capable of generating approximately 8 MWh/year, the EPODTM unit is expected to result in an annual CO2e savings of approximately 60 tonnes when compared to traditional, fuel-based power generation.

Other solar power initiatives that were implemented in 2021 include: installation of solar powered remote monitoring devices; installation of new solar equipment in conjunction with our 2021 DCET program; solar retrofits of legacy pumps; and, installation of solar- powered leak detection systems.

Collectively, these initiatives are expected to result in a further CO2e savings of approximately 20 tonnes/ year.

France: In Parentis, we provided space for a partnership that installed solar panels over our parking areas, providing cover and generating grid power.

Air Emissions

Reduction of NOx Emissions

Netherlands: On three drilling operations completed between 2019 and 2021, we reduced NOx emission exposure associated with our Netherlands operation by 960 kg NOx, or 10% compared to the base case, by using NOx scrubbers on our drills. We anticipate using both NOx scrubbers and purchasing NOx certification via permanent withdrawal of agricultural NH3 emissions for other drills.

Feature: Renewable Energy Projects in France

In 2008, Vermilion teamed up with four agricultural engineers who wanted to create an economically and ecologically viable greenhouse operation in which to grow tomatoes. The concept was to use geothermal energy from our Parentis oilfield's produced water to supply an industrial-sized tomato greenhouse operation. Today, this ongoing operation has catalyzed an entire agricultural sector, and we have expanded the concept to heating a residential neighbourhood, a microalgae producer, and a college in three additional communities in France. This represents strong partnerships developed over the years that represent added value for the areas that host our activities.[203-2]

In Parentis, our commitment to provide heat free-of-charge and free of carbon emissions for 25 years has made the greenhouse operation profitable to build and operate, which in turn has enabled our partners to expand, and attracted other business to the area.

We are incredibly proud of the role we played in catalyzing this economic growth, with its social and environmental benefits. Not only have we helped create new jobs in a new industry, we have effectively decoupled economic growth from greenhouse gas emissions for this sector.

Here's how it grew.

It began with tomatoes

The mayor of Parentis brought Vermilion and the tomato growers together in the mid-2000s. The ensuing discussions led to the rezoning and issuance of related municipal permits, and the signing of our 25-year partnership agreement. Tom D'Aqui (the tomato- growing cooperative) built their first 10-hectare greenhouse next to our Parentis battery, we installed the heat exchange technology, and brought the operation online in 2012, establishing that this model not only worked, but worked well.

How our geothermal energy is sourced

- Vermilion's petroleum extraction process in the Parentis field produces a mix of oil, gas and water, which is naturally heated to around 60°C.
- Once the oil and gas are separated out, the heated water enters a "closed loop" system where heat exchangers transfer its caloric energy to a second water system belonging to Tom d'Aqui (while ensuring fluids from the two water systems never come into contact).
- The second water system heats the Tom d'Aqui greenhouse located next to the Parentis battery.
- Vermilion reuses the produced water by pumping it back underground to maintain reservoir operating pressures and enhance production.

Within the overall agricultural sector listed above, the direct impact of our produced water geothermal system includes:

- 7,500 tonnes of tomatoes grown annually in 15 hectares of greenhouses
- 10,000 tonnes of greenhouse gases avoided each year
- 250 direct jobs

This heating system also allows the Tom d'Aqui greenhouse to be heated without carbon emissions, a key element in their certification as an eco-greenhouse. The project also reduces the cost of traditional tomato growing operations in the region, allowing the producers to compete with warmer climate producers.

Circular Economy Recognition from the Government of France

This shared focus on innovative technology and environmental responsibility earned our partnership the 2013 Circular Economy Award for Industrial and Regional Ecology from the French government, recognizing economically successful enterprises that operate within a circular economy.[G4-OG2/3]

Expanding beyond

In Parentis, our commitment to provide heat free-of-charge and free of carbon emissions for 25 years made the Tom d'Aqui greenhouse operation profitable to build and operate, which has enabled the cooperative to expand their business to other locations nearby. By demonstrating proof-of-concept, our partnership with Tom d'Aqui has been credited as being a catalyst for three new projects launched independently of Vermilion. It has also attracted other business to the area, creating an agricultural sector that has become an important factor within the region's economy. Our heat contributes 40% of the sector's needs; the other projects have been developed using recycled biomass,

with the result that this is now the largest tomato production in France from non-fossil fuel sources, including:

- 15,000 tonnes of CO2 avoided every year
- 15,000 tonnes of fresh tomatoes produced annually
- 27 hectares of greenhouses built, comprising four greenhouses
- 350 long-term jobs created, and
- 37 million euros invested in economic diversification in a rural area

We are incredibly proud of the role we played in catalyzing this economic growth, with its social and environmental benefits. Not only have we helped create new jobs in a new industry, we have effectively decoupled economic growth from greenhouse gas emissions for this sector.

Sharing Our Expertise

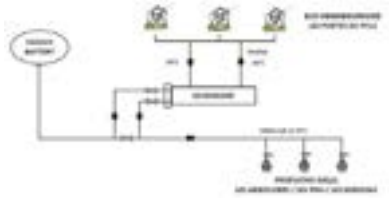
Based on our success, we supported AVENIA, an industry partnership that advises the French government on energy, to launch an industry and country-wide study to identify the potential for waste energy use from oil and gas operations. In addition to contributing financial support, we provided the expertise of our people, and actively encouraged other companies to participate. The results were shared following a detailed review by AVENIA.

Moving from Agriculture to Housing, in La-Teste

We are using a similar geothermal concept to support an Eco-Neighborhood in La-Teste. This 30-year partnership with the city and the French land developer Pichet is using our recycled geothermal energy to heat 550 apartments, saving 50% of the heating bill for the residents and 500 tonnes per year of CO2. The community, which has reserved one third of the apartments for low-income social housing, also features a community centre and various sports facilities.

The technology works the same way as in our greenhouse partnership:

- Vermilion produces oil from three fields in the Arcachon Basin (part of the Aquitaine Basin): Les Mimosas, Les Pins and Les Arbousiers. The production is gathered in a central battery where approximately 1,000 m3/ day of water at a temperature of 70 degrees Celsius is produced along with the oil.
- A heat exchanger on our battery allows the transfer of the energy from the produced water to the eco-neighborhood, producing up to 80% of the heat needed; the remaining 20% will be supplied by the use of gas resulting from biomass, thanks to a COFELY/ENGIE boiler.



Advancing to New Projects

In 2021, we established a third geothermal application in France. Our Vic Bilh asset is providing geothermal heat to a nearby Fleur de Vie facility that produces high quality spirulina, a microalgae with a wide variety of uses.

In addition, our Les Pins asset began providing geothermal heat to Archachon college in late 2021.

Feature: Low-Carbon Energy Projects in The Netherlands

As a key part of the low-carbon transition, Vermilion is leveraging the proof-of-concept established in France to develop alternative energy projects in our operations in The Netherlands. There, the Dutch Energy Agreement (DEA) is targeting a 400% increase in renewable energy contribution from 4% in 2013 to 16% in 2023. We are playing an important role by demonstrating that, beyond using natural gas as a lower carbon transition fuel, synergies exist between natural gas production and green or renewable energy. We are also using our core business, based on geoscience expertise and our existing infrastructure, to investigate several important avenues for supporting the DEA's target.

Biogas Production

In Harlingen, we have partnered with SPF Group, a producer of sustainable fuels, to investigate the use of our Harlingen Treatment Centre location for their biogas production site. The location includes a quay, which makes it possible to receive raw materials via water, thereby limiting truck transportation, and it offers existing buildings instead of new builds, which supports the sustainability principle that all parties involved are pursuing. It can also make use of Vermilion's extensive gas infrastructure there. As of June 2022, SPF Group has located their head office at our location.

Combined Gas and Geothermal Exploration

This work in Noord Holland focuses on developing geothermal assessment plans on new gas drilling prospects so that a single drilling operation can address the potential of both natural gas and geothermal energy opportunities. It makes good economic sense: geothermal projects are currently economically viable only in very good reservoirs and with subsidies. Combining gas and geothermal exploration increases the return on investment significantly.

The Green Deal: Ultra Deep Geothermal Energy

Vermilion was one of seven companies to partner with the Dutch government, EBN (a natural gas exploration and production company owned by the government) and TNO (a Dutch non-profit for applied scientific research) to investigate ultra-deep (4,000 metres) geothermal energy that would produce the high heat needed by industrial energy customers.

As part of our participation, we undertook a geological evaluation of the available 3D seismics. From this, we have concluded that the required Dinantien carbonate platform in Heerenveen is probably not present. So, although we certainly see the possibilities for ultra-deep geothermal in the Netherlands, we consider the opportunities for the successful development of a project at this specific location in Heerenveen within the frameworks outlined to be too small. While the project identified that this is not currently practical in our area of operation, our participation demonstrates our partnership approach to developing new products and services through research and development.

Gas to Geothermal Energy Conversion

Our project to convert two of our depleted gas wells in Middenmeer, in North Holland, to geothermal production is on hold while the technical and economical aspects are further analyzed.

External Associations, Initiatives and Advocacy

We recognize the need to ensure that our advocacy efforts reflect our business strategy, particularly with respect to climate change and the energy transition. We engage directly with government representatives when we believe we can make a difference in creating policy and regulation decisions to support the participation of oil and natural gas companies in the energy transition, so that we can be part of the solution.

Vermilion supports the goals of the Paris agreement and governments' actions to develop and implement related climate change policy and regulation, while recognizing the critical role that oil and natural gas will play during the energy transition to ensure accessible and affordable energy supplies.

Our position is that while oil and gas resources are still needed during the energy transition, the provision of clear, stable and reasonable regulations will allow energy producers such as Vermilion to continue to operate in an environmentally and socially responsible manner.

We believe that domestic energy supply should be prioritized over importing oil and gas, for its contributions to national energy security, the economic benefits it provides to local communities through employment and local investment, its compliance with stringent safety, environmental and workplace regulations, and the lower carbon footprint it often provides.

We are aware that the trade and industry associations we belong to may, as part of their roles, represent their membership by advocating for government policy and regulations. We monitor that advocacy to ensure that it fairly represents our position and the goals of the Paris agreement.

To support this, we annually review all memberships to assess alignment, and provide our Executive Committee and Board of Directors Sustainability Committee with a summary, including misalignment and recommendations. In 2022, three associations had no commitment or equivalent to the Paris agreement, and one had lobbying activities misaligned with Paris. When there are discrepancies between the organization's position and ours, we engage with the association to understand and influence the issue. We consider withdrawal of membership only if no improvement proves likely.

In 2021, we did not engage lobbying firms to acto on our behalf. Our membership fees in industry and trade organizations totalled $1.7 million.

We actively participate in government industry working groups, often at government request. These are generally designed to seek our expertise on technical aspects, and use our input as one of many stakeholder positions to be considered prior to setting out regulatory or legislative changes.

We are committed to transparency in our advocacy efforts, including:

- Participating in advocacy registries wherever required
- Providing summaries of our advocacy positions, and
- Listing our membership in industry and other associations

Advocacy Registries

We provide reporting on our engagements with public officials based on the regulations in place in our regions; these include:

France: Vermilion's report for the High Authority for the Transparency of Public Life Report.

Ireland: Quarterly reporting to the Register of Lobbying.

Summary of Advocacy Positions

Global: *support for the role of responsibly produced oil and natural gas to provide affordable and dependable energy as a bridge to greater reliance on renewable fuels*

France: *support for the transformation of industrial and extractive sectors in the service of the regions*

Netherlands: *advocacy for the role of small natural gas fields during the energy transition, including government adherence to legal timelines for permitting to support gas production, and advocacy that part of the revenues from gas production should be invested locally*

Ireland: *support for the role of natural gas in improving domestic energy security during the energy transition, including as lower carbon than imported gas, for the government's 2050 net zero carbon targets, and for the potential use of the Corrib infrastructure for blue or green hydrogen*

Germany: *completed working with government and the extractive industry to support a new regulatory approach to working in water protection zones; finalized working with BVEG, industry and ministries on new deep drilling regulation*

Central and Eastern Europe: *advocacy for permitting and progressing projects in a timely fashion*

Membership in Key Business and Industry Associations

Association	Details
Ambes Regional Water Basin Committee	Our Ambes superintendent has been elected as a voluntary member of this basin committee, having a key role in two commissions: the Littoral Commission and the Industry Commission. The committee brings together a wide range of regional stakeholders focused on the health of the water basin.
Australian Institute of Petroleum (AIP)	Vermilion is a member of AIP, which was formed in 1976 to promote industry self-regulation and effective dialogue between the oil industry, the government and the community.
Australian Marine Oil Spill Centre (AMOSC)	A not-for-profit subsidiary of the Australian Institute of Petroleum, AMOSC operates Australia's marine oil spill response equipment stockpile on 24 hour stand-by for rapid response anywhere around the Australian coast.
Australian Petroleum Production & Exploration Association (APPEA)	Vermilion is an active member of APPEA, which represents Australia's oil and gas exploration and production industry. Our Managing Director in Australia has been a long-time director on the APPEA board, and previously served as the board's Chair.
Australian Resources Energy Group	As a member-based organization, AMMA's work in policy and advocacy directly shapes the Australian resources, energy and supply industry.
Bordeaux Maritime and Port Club	Promotes and supports Bordeaux maritime activity, and fosters the economic development of the port of Bordeaux
Business in the Community Ireland	A movement for sustainable change in business, with a purpose to inspire and enable businesses to bring about a sustainable, low carbon economy and a more inclusive society where everyone thrives.
Budapest Chamber of Commerce and Industry	Supports the development and organization of the Hungarian economy representing the general and joint interests of its member business organizations.
Federal Association of Natural Gas, Petroleum and Geoenergy (BVEG)	BVEG represents the interests of German oil and gas producers, underground storage facility operators and service providers active in the industry.
Canadian Association of Petroleum Producers (CAPP)	CAPP's mission, on behalf of the Canadian upstream oil and natural gas industry, is to advocate for and enable economic competitiveness and safe, environmentally and socially responsible performance.
Dutch oil and gas explorer and producer association (NOGEPA)	Vermilion is an active member of the Dutch oil and gas explorer and producer association. We participate in several workgroups and sub-committees, working closely with other industry representatives to continuously improve our practices related to safety, environment and public acceptance.
Energy Sector Sustainability Leadership Initiative	This voluntary working group focused on sustainability benchmarking within the oil and gas industry in Calgary when it launched in 2013, and has since transitioned into a focus on energy sector sustainability best practices. Vermilion chaired the initiative in 2017, and has continued as an active member since then
Eurogas	Eurogas is an association representing the European gas wholesale, retail and distribution sectors, which aims to strengthen the role of gas in the energy mix through ongoing dialogue with European industry players, global gas producers, and relevant institutions and organizations
EVOLEN (France)	Supports oil, gas and new energy players in the development of responsible, sustainable, and economical solutions to ensure access to energy for all, and accelerate the energy transition
French FAB	An organization to promote French industry.
Geothermie Nederland	Trade association for geothermal energy, committed to the availability of sustainable and affordable heat for citizens and businesses
German Society for Petroleum and Coal Science Technology (DGMK)	The purpose of DGMK is to promote and advance science, research, technology and continuing education relating to fossil fuels.
Emsachse	Vermilion is a member of Emsachse, a multi-sector collaboration designed to address joint challenges and interests in the Ems-Axis growth region. This alliance of companies, municipalities, educational institutions, chambers and associations throughout East Frisia aims is to raise the profile of a common economic region while at the same time strengthening economic growth and creating additional jobs.
Energy and Equipment Materials Users Association (EEMUA)	Vermilion joined EEMUA, which is focused on supporting its member companies with safety, efficiency and compliance good practice, in 2018.
France-Canada Chamber of Commerce	Vermilion began serving on the Board of Directors in 2012. The Chamber of Commerce promotes business activities between Canada and France.
Geothermal Forum Lower Saxony	The Geothermal Forum provides a platform for the exchange and preparation of information for the geothermal industry.

Association	Details
Irish Offshore Operators' Association (IOOA)	Founded in 1995, the IOOA is a representative organization for the Irish offshore oil and gas industry. By cooperating and providing a common approach to issues such as safety, the environment, legislation and employment, the IOOA pro-actively assists in the development of oil and gas exploration and production in Ireland's waters.
Hungarian Mining Association (MBSZ)	Vermilion is a member of the MBSZ, an advocacy organization representing all sectors of the mining industry.
MEDEF	MEDEF is the leading network of entrepreneurs in France.
Petroleum Association of Wyoming (PAW)	PAW is a statewide trade association dedicated to the betterment of the state's oil and gas industry. The association seeks to educate all levels of government about the responsible development of oil and gas to ensure the industry's continued vitality.
Pole AVENIA Geosciences Innovation Valley	Vermilion began serving on the Board of Directors of this voluntary competitiveness cluster in 2013; AVENIA has many programs related to supporting geothermal development in France and optimizing recovery from existing hydrocarbon reservoirs. It brings together companies, research laboratories and schools, and also involves governments and local organizations
Saskatchewan Petroleum Industry Government Environmental Committee	SPIGEC was formed in 1992, and responds to the need for government and industry to work cooperatively to resolve provincial environmental management issues. SPIGEC's overriding goal is to ensure the continued growth of the oil and natural gas industry with development proceeding in a manner that minimizes adverse environmental effects.
UFIP (Union française des industries pétrolières)	UFIP is the French industry association for the petroleum industry, including companies operating in France in one of the oil and gas industry's three major segments: exploration and production, refining, and marketing. It provides the French government with ongoing industry feedback on various European Union directives/initiatives.
Western Energy Alliance	Western Energy Alliance is a nonprofit trade association representing companies engaged in all aspects of environmentally responsible exploration and production of oil and natural gas in the western United States.

Our Leadership

Governance Dashboard

Excellence. Trust. Respect. Responsibility. These four core values guide what we do and how we do it.

SDG	Target	Vermilion's Contributions
	SDG 13.1. Take urgent action to combat climate change and its impacts	This applies directly to Vermilion's investments in environmental protection, disclosures of GHG emission and intensity data, internal carbon pricing and carbon liability analysis, and overall governance of climate risks and opportunities.
	16.1: Reduce all forms of violence	Internal policies on ethics, workplace violence, discrimination and/or harassment; whistleblower policies; human rights Audited annual reporting Anti-corruption policies Internal governance structures Compensation Board of Directors effectiveness disclosures
	16.3: Promote the rule of law	
	16.4: Combat organized crime	
	16.5: Reduce corruption and bribery	
	16.6: Effective, accountable and transparent institutions	
	16.7: Responsive, inclusive, participatory and representative decision-making	

In 2021

The Board:

- Reviewed the 10-year sustainability strategy for managing risks and opportunities identified through the Company's energy transition scenario analysis, encompassing key commitments under each strategy pillar of carbon, conservation and community.
- Reviewed sustainability-related risks and opportunities, and their integration into our enterprise risk management system.
- Reviewed Vermilion's sustainability performance relative to the Company's peers based on key ESG rating agency scores.
- Following the recommendation of the GHR Committee, reviewed and approved amendments to the Board Diversity Policy to Broaden definition of 'Diversity' to include, but not limited to, skills and experience, gender, age, ethnicity, national origin, sexual orientation, disability, Indigenous people, gender expression/identity, family status or religious beliefs; and commit to maintain a Board composition in which at least 30% of the Directors are women.

The Sustainability Committee:

- Assessed Vermilion's progress against its long-range strategic plan for sustainability, including approving the 10-year strategy for managing risks and opportunities identified through the Company's energy transition scenario analysis, encompassing key commitments under each strategy pillar of carbon, conservation and community.
- Monitored Vermilion's performance via internal reporting and results from third-party ESG rating agencies
- Analyzed Vermilion's sustainability-related risks, correlated to those identified as material for our industry by the TCFD and SASB, along with emerging issues, and investor and financial sector ESG trending
- Examined the carbon emissions profile of the Company, along with global carbon pricing regulatory changes, emissions intensity benchmarking, and peer comparisons, to ensure related risks and opportunities are identified and realized.
- Approved the Company's emission reduction targets, including the long-term aspirational goal of Net-Zero by 2050 for Scope 1 and 2 emissions, and the short-term target to reduce Scope 1 intensity by 15% - 20% by 2025.

Commitments and Progress

2020 Target	2021 Target	2022 Target
Conduct annual "say on pay" advisory vote at AGM [102-37]	Conduct annual “say on pay” advisory vote at AGM	Conduct annual “say on pay” advisory vote at AGM
Received 65% shareholder approval	*Received 42% shareholder approval the Board took the results of this vote into account, as appropriate, when considering future compensation policies, procedures and decisions.*	*Received 96.6% shareholder approval*
Develop Sustainability Committee Terms of Reference and associated procedures	Review Vermilion’s updated sustainability strategy, including mid- to long-term emissions-related reduction targets	Review Vermilion’s updated emissions reduction strategy, including progress on mid- to long-term emissions-related reduction targets
100% achieved	*100% achieved*	*On track*
Conduct scenario analysis work at Board level	Increase Board gender diversity to 30% by the 2024 annual general meeting, and apply to become a member of the 30% club, joining their campaign to increase gender diversity on boards	Maintain Board gender diversity at least 30%, along with membership of the 30% club.
100% achieved	*100% achieved*	*100% achieved*
Incorporate sustainability-related information in regulatory filings in alignment with recommendations from the Task Force on Climate-related Financial Disclosures	Review sustainability-related information in regulatory filings in alignment with recommendations from the Task Force on Climate-related Financial Disclosures	
100% achieved	*100% achieved*	

Effective Sep 1, 2022, Vermilion’s Board of Directors is comprised of 9 directors and 1 corporate secretary.

Nine Directors (100%) are considered independent, and three (33%) are female. [102-22]

President Pay Ratio

We disclose the annual total compensation of our President (as our highest paid employee) compared to the median annual total compensation for employees. [102-38] Vermilion’s 2021 President-to-employee ratio of 29-1 is magnitudes lower than the 324-1 ratio for S&P 500 Index companies reported for 2021 by the American Federation of Labor-Congress of Industrial Organizations. [102-39]

Diversity

We recognize the importance of gender diversity. In 2021, the Board Diversity Policy was amended to include a clear commitment to increase Board gender diversity to 30% by the 2024 annual general meeting. In support, our formal recruitment process for the Board and Executive Officer vacant positions includes a candidate screening step that includes reasonable efforts to secure at least 50% of qualified women applicants and the interview pool for every Board and Executive Officer position available. [102-24]

In 2022, Vermilion successfully became a member of the 30% Club, joining their campaign to increase gender diversity on boards.
We also plan to continue a mentoring program, focused on helping high-potential female employees develop their management skills and prepare for senior leadership roles. Given the positive feedback from mentors and mentees, this program will be expanded to additional participants in 2022.

Our Approach to Governance

Strong governance is in the best interest of our shareholders and promotes effective decision-making at the Board level and throughout the company. The members of our Board of Directors, Vermilion's highest governing body, are proven leaders who guide our management, ensure the continued integrity of our people and processes, oversee risk management, and position our company to deliver on our purpose.

Management

Complete details related to Board governance can be found in our regulatory filings, particularly our annual Proxy Statement.

Key highlights include the following:

Independence of Directors: We define independence as the absence of relationships that could compromise the ability of a director to exercise judgment with a view to making an objective assessment of management and assessing the merits of management initiatives. We appoint an independent Chair of the Board, or if the Chair is not independent, an independent Lead Director. Our independence statement is publicly available via our Board Operating Guidelines, on our corporate website. [102-23]

Board Structure: Our board structure is a one-tier system. Our directors oversee all matters related to performance, including our economic, environmental, social and governance impacts, through five committees (below): [102-18]

- Audit
- Governance and Human Resources
- Health, Safety and Environment
- Independent Reserves
- Sustainability

International directorships: Vermilion practices good governance standards with its international subsidiary companies, and has appointed independent directors to the Boards of our various subsidiaries.[102-25] International Board members are responsible for overall guidance of the subsidiaries and are knowledgeable in the country of operations, with backgrounds in a combination of legal, regulatory, executive leadership and operations. Boards of our international subsidiaries are two-tier systems and include representation by non-executive directors and employees.

Compensation Transparency: We communicate the individual compensation of our Board of Directors and our five highest paid executive officers via our annual Proxy Statement and Information Circular. We also publicly disclose the measures relevant for performance-based variable compensation.

Board Skills: We maintain a skills matrix in which each Director rates their expertise in each area annually, including for sustainability, from limited to expert. The results are then evaluated for individuals and for the Board as a whole. Our most recent assessment determined that the majority of directors are skilled, or at expert/mastery levels.[102-28]

The matrix is reviewed regularly by the Board to ensure an appropriate mix of backgrounds, skills and experience to guide Vermilion's long-term strategy and ongoing business operations.

We previously employed a second matrix focused on sustainability; however, with all Directors now at an expert level in sustainability and details included within their bios in the Information Circular, the second matrix is no longer needed.

Board Diversity: We recognize the importance of diversity as a component of board effectiveness and business performance, and have adopted a Board Diversity Policy. For the purposes of Board composition, diversity includes, but is not limited to, skills and experience, gender, age, ethnicity, national origin, sexual orientation, disability, Indigenous people, gender expression/identity, family status or religious beliefs, and "Diverse Persons" includes, but is not limited to, women, people of different race, Indigenous people, individuals who identify as LGBTQ2S+, and people with disabilities. We believe that by composing our Board of individuals that bring diverse backgrounds and skills, Vermilion has been and will continue to be successful in problem-solving, deliberating key issues and making quality decisions that deliver positive long-term results for our shareholders and stakeholders alike. Diversity and complementarity of skills are key criteria in Vermilion's board nomination process. In 2018, we adopted a formal recruitment process for the Board and Executive Officer vacant positions that includes a candidate screening step that addresses gender diversity. The candidate screening process should include reasonable efforts to secure at least 50% of qualified women applicants and the interview pool for every Board and Executive Officer position available. We have also set — and met — a target of at least 30% female board members. [102-24]

Board Election and Tenure: Board members are elected and re-elected on an annual basis individually, as opposed to elected by slate. We have a retirement guideline at age 75 (which we can make exceptions for),

but we do not have a term limit for directors. While term limits can help ensure the Board gains new perspectives, imposing this restriction means it would lose the contributions of longer serving directors who have developed a deeper knowledge and understanding of Vermilion and our industry over time. We also value new perspectives. See also Board Tenure on our Dashboard page.

Performance, Evaluation and Adjustment

Board Evaluation: The Governance and Human Resources Committee, whose members are all independent, ensures that each member of the Board, the Committees, the Chair and Lead Director are assessed annually in light of their relevant terms of reference and level of expertise within our skills matrix. Directors complete a number of confidential evaluations administered by our Corporate Secretary (who is a senior partner of our external legal counsel, and not an employee of Vermilion), including:

- Rating their own effectiveness and the effectiveness of each Committee, and
- Evaluating the contributions of their peers, including the Chair of the Board and the Lead Director, in order to provide performance feedback and suggestions for improved effectiveness or contributions. [102-28]

The Governance and Human Resources Committee analyzes the results and assesses whether changes need to be made in the Board's processes, composition or Committee structure. Our goal is to continuously develop a top performing Board with diverse skills and deep expertise who add value to the business through governance oversight.

Company and Board Performance – Awards: We monitor corporate governance best practice development on an ongoing basis, engage with key governance and proxy advisory services, and adjust our practices where we determine it to be beneficial for the company and our shareholders. We are proud to be consistently recognized for excellence in governance practices by a wide range of governance-related organizations, including the Globe and Mail Board Games report, the Canadian Coalition for Good Governance, and MSCI. For details, please see our Awards page.

Ethics & Anti-Corruption

Our Approach to Ethics, and Why It Matters

Every member of Vermilion, from the Board to our staff, understands they have a fiduciary and ethical duty to the company and its stakeholders, including the obligation to act honestly and in good faith. Our Code of Business Conduct and Ethics ("Code of Conduct") and Anti-Corruption, Sanctions and Anti-Money Laundering Policy outline a framework of guiding principles for directors, officers, employees and contractors globally, and support the personification of our core values and the demonstration of ethical business practices.[102-16]

Management

Specifically, the Code of Conduct covers:[102-25]

- Conflicts of interest
- Compliance with the law
- Outside business interests
- Confidential information and securities trading
- Retention and destruction of records
- Accounting and auditing
- Recoupment of incentive compensation
- Entertainment, gifts and favours
- Improper payments, including bribes and facilitating payments
- Fair dealing - Non-profit and professional association
- Protection and use of the corporation's property
- Political participation
- No loans to executive officers or directors
- Disclosure
- Workplace conduct and safety
- Environment
- Reporting of inappropriate activity
- No retaliation
- Responsibility

The Anti-Corruption, Sanctions and Anti-Money Laundering Policy further covers:

- Improper payments
- Facilitating payments
- Due diligence
- Agents
- Contractors in high-risk jurisdictions
- Foreign joint ventures
- Gifts, entertainment and travel expenses
- Political and charitable contributions
- Employment of public officials
- Violations
- Audit
- Private-to-private corruption
- Economic sanctions
- Anti-money laundering compliance
- Reporting
- Corrective action

These documents are available publicly on our external website, and are also contained within each country-specific Employee Handbook, which are available in English and in our other major languages, including French, Dutch and German. These handbooks are available 24/7 on our company intranet, and also contain Vermilion's country-specific policies, workplace guidelines, and employment obligations.

Our employment obligations cover the following topics:

- Code of Business Conduct & Ethics
- Social media
- Reporting of inappropriate activity
- Personal information privacy
- Anti-corruption policy
- Health & Safety - Environment
- Discrimination, harassment and workplace violence
- Drug and alcohol
- Fitness for Duty

Training on Codes of Conduct is provided as part of the onboarding process for new employees and contractors. We also require all of our directors, officers, employees and contractors to review these documents and their obligations annually, and to electronically confirm their understanding and compliance with these obligations using our People information management system.[102-17]

Within the company, our President, Chief Financial Officer, and Vice President People and Culture, hold responsibility for these policies, while our entire executive committee operates with an open-door policy for staff concerns about any of these issues. This is augmented by a confidential email option on our website and a phone number that allow staff and members of the public to anonymously report concerns or seek advice from our Corporate Secretary, who is a senior partner of our external legal counsel and not a Vermilion employee. Our Corporate Secretary then takes those concerns directly to the Executive or Board of Directors, depending on the reported issue. Concerns are investigated in accordance with our Fair Culture Policy with results reported to management and the Board as appropriate given the risk severity identified within our corporate risk register and matrix.

Our whistleblower policy – known internally as our "Reporting of

Inappropriate Activity Policy" – prohibits retaliation, harassment or discrimination against anyone making a complaint or reporting a concern. Further ethics reporting can be found in our Performance Metrics. [102-17]

Third Party Vendors: As part of our management guidelines, authorized Vermilion personnel must ensure that third-party vendors – suppliers and service providers – who enter an agreement with Vermilion for the handover of work and properties must communicate all appropriate Vermilion policies, standards, procedures and practices, and must monitor for their compliance. This is in place in all of our business units, and an audit protocol has been established to ensure this communication occurs. Examples of these policies include our Code of Business Conduct, and our obligations to provide a workplace free of harassment and violence.

New Business Development, including Joint Ventures: Analysis of corruption risks is specifically included in all new business development. When we consider entering a new country of operations or entering into any joint venture or partnership, we conduct an initial assessment based on Transparency International. If we decide to proceed with that business development or partnership, we conduct additional research and due diligence based on the results of the initial assessment, including the degree of risk presented by the partner, location, and the nature and sensitivity of the joint venture. When we hire consultants and services in other countries as part of business development or new ventures, we provide our Anti-Corruption policies and require they sign a compliance certificate to abide by our policy and the country's anti-bribery laws. Joint venture partners are also required to acknowledge both local and Canadian laws, and warranty that they will not violate anti-corruption laws, or authorize or provide any kind of payment that would be in contravention of those laws or our anti-corruption policyies. Further information is contained in our Code of Business Conduct and Ethics, and our Anti-Corruption, Sanctions and Anti-Money Laundering Policy.

Measurement

To ensure that 100% of our staff and contractors have confirmed that they understand the policy and are not aware of any contraventions, either by themselves or others, we track the response rate from the annual employee and contractor sign-off for compliance with our Code of Conduct. Sign-offs that are not completed are followed up, to ensure that the policies are understood and complied with.

To further demonstrate ethical and anti-corruption transparency, we track and publicly disclose:

- Payments made to all governments in countries where we operate, through our Extractive Sector Transparency Measures Act (ESTMA) report, which can be found on our website; Canada is a supporting country to the Extractive Industries Transparency Initiative, which has confirmed that ESTMA provides an equivalent level of reporting to the EITI Standard.
- Memberships in industry-related trade associations, including those with advocacy mandates (see External Associations and Initiatives).
- Key community investment partnerships (see Our Communities section): our anti-corruption policy directly prohibits community support payments to political organizations, politicians and individuals. All payments must be made to a registered non-profit or charitable organization, are reviewed by our corporate community investment staff and authorized by leaders in accordance with our financial authority grid. They are entered into our accounting system, and thereby included in our internal controls, including financial audits.
- Political contributions: we do not contribute payments to political campaigns, political organizations, or lobbyists.

Evaluation and Adjustment

Specific staff who may encounter anti-corruption issues in their work have undergone additional training. This includes our senior executive and management team, financial team, sustainability team, and business development / new ventures team. The requirement for additional training is assessed annually.

Our People

People Dashboard

Our culture is the single most important factor in our success — and that's driven by our people

SDG	Target	Vermilion's Contributions
	3.4 Reduce premature mortality through prevention and treatment, and promote mental health and well-being	Access to preventive health care, including supplementary medical coverage for all permanent employees, access to mental health care, and support for safe and healthy surroundings and lifestyles.
	5.4 Recognize and value unpaid care and domestic work and shared responsibility	Family-friendly work options, including parental leave, vacation purchase, flexible work hours, a remote work option two days a week in pilot testing, and part-time work with benefits.
	8.2 Achieve full and productive employment and decent work for all women and men	A range of workforce protections, including respect for labor rights, detailed codes of conduct, robust compensation and benefits program, and a range of options for training and development.

Key Metrics

Total Workforce (Dec 31, 2021)

- *948 staff*
- *77% permanent employees*
- *52% located in North America, 40% in Europe; 8% in Australia.*

2021 Highlights

- *41 new permanent employee hires; 24% filled internally*
- *8,419 hours of training and development*
- *Voluntary turnover rate of 3%, including retirement, and total turnover of 4.4%.* [401-1]

Women in Leadership

- *17% executive roles*
- *17% all leadership roles*

Targets

- *100% of permanent employees participating in an annual review and development plan*
  - *99% achieved*
- *Strong staff participation in global annual Great Place to Work survey*
  - *Replaced by more specific and frequent surveys in 2020 and 2021 due to COVID-19*

Our Approach to People

Our staff are key to achieving our operational and business goals, so our approach to People begins with our values: Excellence, Trust, Respect and Responsibility. We are focused on building a team of diverse, talented and engaged people who work together to achieve superior results and make Vermilion an exceptional place to work. Because we view our strong culture as the foundation of our success, it influences everything we do, which is why we prioritize:

- Collaborating and having fun working together, sharing ideas and best practices
- Rewarding high performance and celebrating our successes
- Investing in career development and promoting wellness
- Working flexibly and balancing our work and personal lives, and
- Valuing a diverse workforce that reflects the communities in which we work.

Management

We are committed to maintaining Vermilion's position as a workplace of choice, to enable us to attract and retain high quality staff. This includes offering competitive compensation and benefits packages, providing a safe and respectful work environment, and sustaining our strong culture.

Recruitment

We look internally to fill job postings wherever possible, to provide our staff with career advancement and/or development opportunities. When we recruit externally, we hire employees with strong technical skills and vision who want to work in a highly collaborative and dynamic environment.

Onboarding

Our onboarding process is designed to make our new team members feel immediately welcome, connect them with their immediate team and key colleagues, and integrate them quickly into our culture. This includes reviewing our People, Code of Business Conduct and Ethics and HSE policies, explaining compensation and benefits programs, ensuring IT systems are available, and providing key information about our company and culture.

Compensation and Benefits

We acknowledge the value our people bring via a market-competitive compensation and benefits approach. Our programs are designed with a common structure across all geographies where possible, with alignment to local markets.

Our compensation philosophy and program objectives are the same for employees at all levels, with details in our annual Information Circular and Proxy Statement. All permanent employees are offered a competitive base salary, short- (bonus) and long-term incentive plans, and a pension or retirement-like scheme. Short- and long-term incentives are associated with both individual and company performance, and are linked to specific corporate metrics. These include sustainability and HSE performance indicators, supporting our priorities of safety and environmental protection, market performance compared to peers, strategy delivery, and financial and operational success.

We target total compensation between median and top quartile, depending on company and individual performance. Four objectives guide the design of Vermilion's compensation plans:

- Ensuring our operations worldwide are sustainable under a range of commodity price environments
- Allowing us to attract and retain high-calibre employees who are important to our success
- Rewarding all employees and executives when their performance and the company's performance is top quartile, and
- Aligning compensation programs with our strategy to ensure prudent risk-taking.

Health and Wellness

We strive to foster workforce well-being through competitive health and wellness benefits. In Canada, for example, these include a taxable lifestyle account and tax-free health care spending account; health, vision and dental plans; short- and long-term disability benefits; basic and dependent life insurance plans; critical illness and "best doctors" insurance; parental leave; and company-paid access to an employee family assistance program. [401-2 401-3]

In many of our business units, staff have the option to purchase additional vacation days. The Vacation Purchase Policy was introduced in response to employee feedback requesting additional flexibility to support work-life balance and family life.

Mental Health and Wellness

The pandemic created an unprecedented source of stress, from family health worries to the

challenges of working remotely. Our global Mental Health and Wellness program aims to help foster a supportive work environment for our staff, and to provide resources in addition to our existing Employee and Family Assistance Program. This included launching the Canadian Mental Health Association's Not Myself Today initiative, a confidential online program open to all staff globally that offers information, tools and activities to help understand the basics of mental health, have better discussions, increase emotional intelligence, address stress and build a generally more supportive and productive work environment.

We also host an annual Mental Health Week with activities that include staff-suggested music playlists, taking time to chat with each other, mindfulness workshops, gratitude sharing and even virtual yoga.

Anti-Discrimination and Harassment

Our Code of Business Conduct and Ethics is clear that discrimination or harassment against any individual with respect to race, religion, age, gender (including pregnancy and childbirth), marital status, family status, sexual orientation, national or ethnic origin will not be tolerated. Furthermore, discrimination against any activity specifically protected under the Code of Conduct, such as expressing good faith opposition to prohibited discrimination or harassment, or participating in making a good faith complaint of discrimination or harassment, will not be tolerated.

Our Discrimination, Harassment and Workplace Violence Policy ensures that all staff are provided with the opportunity to work in a supportive environment within which individuals are treated with respect, provided with equal opportunities, and kept free of discrimination, harassment and violence from other staff, and understand the different reporting options.

Complaints or concerns can be raised via a staff member's supervisor, human resources, any member of senior management, or anonymously via our reporting of inappropriate activity webpage, which is available 24/7 online. As per our Fair Culture policies, we respect the confidentiality and fairness of the investigation process. In order to protect both, we do not report on numbers of complaints, investigations and confirmed incidents of specific types of complaint. In a smaller company such as ours, this reporting could lead to being able to identify outcomes for those indirectly involved in the investigation such as witnesses, which would not be appropriate.

Works Councils

Several of our business units benefit from Works Councils, which help guide the employee-employer relationship. Works Council members are elected by employees to represent the workforce in discussions with the company on changes that affect the work environment, job expectations or benefits. They can also bring forward suggestions, grievances and concerns.

Works Councils can be established by employee elections in France and The Netherlands in companies with more than 50 employees, and in Germany with more than five. Works Council are in place in France, and in Germany for our field staff. In the Netherlands, the Works Council is eligible to form whenever employees wish.[102-41]

Diversity and Women in Leadership

We recognize the importance of gender diversity. In April 2021, the Board Diversity Policy was amended to include a commitment to increase Board gender diversity to 30% by the 2024 annual general meeting. We achieved this target in July 2021, and have maintained it since.

Our formal recruitment process for Board members and our executive includes a candidate screening step that includes reasonable efforts to secure at least 50% of qualified women applicants and the interview pool.[102-24] In 2021, Vermilion was also accepted as a member of the 30% Club, joining their campaign to increase gender diversity on boards.

We also plan to continue a mentoring program, focused on helping high-potential female employees develop their management skills and prepare for senior leadership roles. Given the positive feedback from mentors and mentees, this program will be expanded to additional participants in 2022.

Fair Culture

Ensuring that Vermilion has a positive, healthy and safe work environment is our top priority. That means it's essential to have fair and consistent procedures to review, document and resolve events or potential violations of company policies and guidelines or local laws. These Fair Culture policies apply to all Vermilion staff and third parties performing work in all of our business units.[102-16]

Fair culture is about understanding human involvement in relation to events in a way that:

- Encourages organizations to learn from their mistakes
- Identifies the underlying causes of events involving human error
- Fairly assigns responsibility and consequences to individuals and leaders following an event
- Rewards behaviors that meet or exceed expectations, and closely examines and addresses non-compliance; and

- Identifies appropriate organizational resolutions to address the underlying causes of events.

Our Fair Culture policies create a balanced approach to assessing organizational, leader and employee accountability, helping to align Vermilion with industry best practices and positioning us as a leader in creating a balanced and transparent culture.

Communication

Communication is critical to building a strong and respectful culture, where employees understand Vermilion's corporate goals and the key role they play in helping to achieve them, and where the company in turn understands what is important to staff.

We have a culture of open, two-way communication. Members of our senior management team make regular visits to our field and international business unit locations. Through the Great Place to Work survey, our people often tell us that they value the approachability of our leaders at Vermilion, and that they feel heard.

VETnet: Our corporate intranet (VETnet) is a key communications channel, offering both global and local news in English, French, Dutch and German. Content generation is shared amongst stakeholders from across the organization, focusing on corporate news, shared learnings, HSE and community investment activities in all our locations. Every VETnet page features a Suggestion button, which staff can use to make suggestions or raise concerns.

Town Halls and Communication from our Executive Committee. In 2020, we adjusted our in-person corporate town halls from a quarterly schedule to every six to eight weeks as needed. Content includes health and safety updates, particularly related to the pandemic, updates from business units and key areas such as HSE and Community Investment, featuring leaders and staff from around the world.

These meetings are archived globally on VETnet so that staff can access them regardless of location and time. A confidential pre-survey provides staff with opportunities to raise questions and make suggestions to the senior management team, who participate regularly in a Q&A panel. A confidential post-survey provides staff with a forum for feedback on the effectiveness of the town halls, interest in the topics presented, and suggestions for future content. These components are an excellent way for questions, concerns and suggestions to be raised, as staff feedback is incorporated into ongoing company strategy discussions.

Technical Sharing. We ensure that learnings are shared via our Global Operating Best Practice team, which provides a company-wide communication platform to share insights and connect our staff, along with peer assists for our technical teams.

We recognize the importance of diversity as a component of board effectiveness and business performance, and have adopted a Board Diversity Policy. For the purposes of Board composition, diversity includes, but is not limited to, skills and experience, gender, age, ethnicity, national origin, sexual orientation, disability, Indigenous people, gender expression/identity, family status or religious beliefs, and "Diverse Persons" includes, but is not limited to, women, people of different race, Indigenous people, individuals who identify as LGBTQ2S+, and people with disabilities.

A Great Place to Work

Vermilion has demonstrated excellent results in the Great Place to Work Institute's® Best Workplaces competition, which we use as a tool for continuous improvement in our culture and people practices. While we put the survey on hold in 2020 due to COVID-19, we continued to ask our staff for important feedback by switching to smaller, more specific and more regular staff surveys.

In 2019, the most recent year that Vermilion participated in the Great Place to Work program, we were recognized as being among the:

- *Top 40 Best Workplaces in Canada, and the only energy company to be recognized out of more than 400 participating Canadian companies*
- *Top 10 Best Workplaces in Germany (Lower Saxony and Bremen Region), placing 1st in the chemistry & pharmaceutical category*

The rankings are based on the Institute's two-fold approach, which includes an independent assessment of our culture along with our employees' confidential responses to the Institute's survey. In part, we attribute these results to the importance we place on reviewing and addressing the staff feedback through the surveys. These results also tell us what our people value about Vermilion — including competitive total compensation, opportunities for growth and development, and pride in how we give back to our communities.

Measurement, Evaluation and Adjustment

Vermilion uses Workday, an integrated, web-based people information system that enables employees to easily and quickly manage their personal information online 24/7, including payroll information, while providing leaders access to required information on their teams. Consistent and increased use of the system has enabled us to capture, verify and report significantly more data since 2012/2013.[102-49]

We use a variety of indicators to ensure that our People programs are achieving our goals:

- Voluntary turnover rates
- Ease of finding qualified candidates
- Results from Great Place to Work and other staff surveys, including department and team workplans that respond to staff concerns and suggestions
- Monitoring and acting on staff suggestions
- Market surveys to ensure we remain competitive
- Evaluating changing legislative or regulatory requirements, and
- Gap analysis for performance metrics.

We adjust our People policies as needed to ensure we remain competitive with our peers, align to changing regulations, and respond to staff requests.

Performance Management, Training and Development

Our performance management system, along with our focus on learning and development, contributes to our overall philosophy to support our people to develop not only the skills they need for their current job but those that will benefit them throughout their career. We take a lifelong learning approach, combined with annual identification of specific performance and development goals for all permanent employees.

We believe that powerful development involves combines:

- Work experiences: on-the-job training through varied projects and roles
- Relationships: coaching and mentoring from others and connecting with external networks, and
- Formal training: specific training courses and conferences.

Providing opportunities for development is a critical element of employee engagement, building productivity and contributing to staff attraction and retention.[404-2]

Management

Vermilion is committed to engaging and supporting employees as they identify and achieve career and development goals.

Performance Management

Our performance management program supports two-way communication between leaders and staff, and we aim for 100% participation for permanent employees.

Overall, the process includes:

- Setting clear expectations for performance
- Creating and communicating performance and development goals, and career aspirations
- Identifying opportunities to learn and grow
- Providing ongoing feedback
- Evaluating results and how they were achieved, and
- Recognizing accomplishments.[404-3]

Individual performance goals are tied to our long-term business strategy's six Matters of Importance, ensuring that employees know how their work supports the company, and how they contribute to our success:

- Extraordinary People and Culture
- Health, Safety and Environment (HSE) – Everyone, Everywhere, Everyday
- Financial Discipline
- Robust and Profitable Portfolio
- Business and Operational Excellence, and
- Integrated Sustainability.

KPIs include both standard industry metrics and internal measures of performance, and are discussed annually in the Information Circular.

The management-by-objectives process begins at the start of the year, when our people identify their performance and development goals, career aspirations and mobility interests through our Driving Excellence – Plan Forward process.

Feedback is provided via ongoing conversations throughout the year between leaders and staff, a mid-year checkpoint, and the Looking Back – Performance Review process at year-end.

SUPPORTING OUR PEOPLE HELPS US TO RETAIN AND ATTRACT THE BEST TALENT IN THE INDUSTRY.

Engineers in Training

We have programs in place in several business units that provide rotating terms of training and exposure across various engineering disciplines for early career engineers.

Apprenticeships

Vermilion continues to participate in an industry partnership in Australia that has created a standardized education and training program to build a skilled, diverse and capable workforce for the future of the oil and gas industry. This covers those leaving secondary (high) school, and adults who already have a trade but are seeking a career change to become dual-traded and are in addition to Vermilion's own apprenticeship program. As of 2022, we have four people on staff through this program.

In Ireland, the Vermilion Energy Apprenticeship Program 2022 includes both on-job training at our Bellanaboy Gas Terminal and off-job formal courses through the Education & Training Board, Ireland. Two four-year apprentices joined the program in 2022, working toward becoming fully trained Technicians.

International Experiences

Our international presence also provides selected staff unique opportunities to work on assignment, helping to broaden their operational expertise and understanding of our global operations while sharing key specialist expertise among our locations.

Leadership

Our leaders are evaluated on an additional set of leadership attributes, including achieving results through teamwork, HSE leadership, managing and setting priorities, and demonstrating Vermilion's values. To support this, we have established a leadership development program with globally recognized content and self-evaluation opportunities that provide a consistent learning journey as our leaders progress in their careers across the company. These include team-awareness tools to support relationships in the workplace, effective team building, supervisory leadership skills, and 360-degree feedback.

Measurement, Evaluation and Adjustment

We use strong workforce and succession planning processes that identify company needs for skills, knowledge and experience, cross-referenced to our performance management process.

This creates an opportunity for us to identify potential career paths for staff within Vermilion, and areas where we may need to recruit externally for specific positions. The Great Place to Work and other staff survey feedback also provides input to our training and development activities.

Over the past several years, we have strengthened training offerings in such areas as HSE courses, and expanded our lunch and learn program to topics such as reserves, investor relations, Indigenous relations, and employee benefit programs. In addition we have had a strong focus globally on leadership development, including HSE leadership development.

We track answers to the question "I am offered training or development to further myself professionally" in every business unit through the Great Place to Work survey. This question provides a clear measure of employee engagement and satisfaction. We are also able to compare these responses to the training and development funding per business unit.

In addition, our ongoing evaluation has allowed us to target increased communication on key performance management topics.

Health, Safety and Environment

Health Safety and Environment Dashboard

HSE: Everyone. Everywhere. Everyday.

Our Safety SDGs:

Our Environment SDGs:

At Vermilion, our Health, Safety and Environment (HSE) approach reflects the integrated nature of these elements. The following sections highlight our overall approach, followed by specific health and safety- and environment-related material.

In 2021, we met 100% of our corporate leading HSE Key Performance Indicators (KPIs), with COVID-19 restrictions requiring an adjusted approach to conducting onsite inspections and observations.

Our 2021-22 HSE accomplishments reflect our progress towards realizing our HSE vision. These include:

HSE Culture

- Completed the update of our long-term 2030 strategy for HSE.
- Guided more than 9,400 hours of HSE-related training in 2021, focused due to COVID-19 on higher priority safety courses and on required certification
- Completed the implementation of our updated Environment and Event Management Information System.

Communications & Knowledge Management

- Focused on monitoring and communicating COVID-related information across the organization, following the medical community's recommendations to ensure the personal wellbeing of staff globally.
- Implemented the International Oil and Gas Producers (IOGP) Life Saving Rules to facilitate a standardized and highly efficient program across the company that brings awareness and tools to reduce risk of life threatening activities.

Management Systems

- Developed both the Process Safety Management System (PSMS) for implementation in 2022, as well as the EU Drillings and Completions Manual.
- Further competency development for the Operational Risk Management and Contractor Management Standards.
- Updated the Event Management Standard.

Health

- Continued to adapt Vermilion's Pandemic and Infectious Disease Plan to manage COVID-19, with special attention given to mental health and office ergonomics to support people no matter where they are working.
- Implemented the Not Myself Today program to support mental health and wellbeing

Environmental and Operational Stewardship

- Set two emission reduction targets (see energy transition section)
- Launched detailed release (spill) lookbacks and action planning in Canada
- Vermilion achieved a “B” ranking for our CDP climate and water submission, which ties us with the top decile of companies globally.
- We are developing robust Performance Standards for 4 of our Business Units. This work has been documented and evaluated to progressively develop organizational competencies that support the PSMS and future regulatory requirements in other parts of our business.

Our HSE Approach and Management

Our HSE Vision is an extension of our core values of Excellence, Trust, Respect and Responsibility, and reflects our commitment to conducting our activities in a manner that ensures the health and safety of our people and those involved directly or indirectly in our operations. This is Vermilion's highest priority. Nothing is more important than the safety of staff, partners, suppliers, communities and all those who work with us.

Protecting the environment immediately follows safety in our priorities. While this presents as a critical operational risk from an adverse environmental incident, it also offers important opportunities to improve technology and processes to both protect the environment and contribute to operational excellence and return to shareholders. 413-2

We operate by the mantra of **"HSE: Everyone. Everywhere. Everyday."** because we believe that striving for a healthy workplace free of incidents is key to efficient and successful operations that will continue to generate strong returns to our employees, shareholders and the communities that we operate in. When it comes to HSE, protecting our people and the places they work, play and call home is what really matters.

HSE Management

HSE Policy

Our HSE Policy is also our promise. It applies to all Vermilion activities, and provides an overall commitment to key principles for managing health, safety and the environment. The policy, which is the basis for Vermilion's HSE objectives and targets, outlines the overall direction of our organization with respect to HSE and contains a commitment to continuous improvement.

Vermilion is committed to ensuring we conduct our activities in a manner that protects the health and safety of our employees, our contractors and the public. Our HSE Vision is to consistently apply our Core Values of Excellence, Trust, Respect and Responsibility. This results in a workplace free of incidents and ensures that our proactive culture and behaviours create a high-reliability organization where HSE is fully integrated into our business – it is our way of life.

Vermilion will maintain health, safety and environmental practices and procedures that comply with or exceed regulatory requirements and industry standards.

Our commitments to achieving strong HSE performance include:

- Maintaining an integrated Management System with clear objectives and expectations to identify hazards and manage risks
- Ensuring visible active commitment from leaders at all levels of the organization to meet our HSE performance targets
- Providing every employee and contractor with a safe and healthy workplace
- Ensuring we nurture our ownership culture where all employees and contractors have a high level of responsibility to HSE
- Prioritizing a culture where everyone is empowered to speak up and promote safe behaviours and environmental protection
- Continuously evaluating and improving our management systems, standards and operating practices and procedures
- Making a positive contribution to the protection of the environment and seeking improvements in the efficient use of natural resources
- Providing ongoing training and competency assessments to ensure safe operations
- Ensuring open and timely communication with all stakeholders, and
- Ensuring the resources necessary to support this policy are provided

Hazard awareness, risk reduction and environmental stewardship comprise an integral part of any job. This is a joint effort that requires continuous support from everyone who works at Vermilion. The protection of health, safety and the environment must be a key part of the planning and execution of every task. All those engaged in work for Vermilion shall be aware of this policy and conduct their duties and behaviours in alignment with these principles.

HSE Roles and Responsibilities

Our HSE Policy is clear that HSE is the responsibility of every person who works for, with or on behalf of Vermilion, from our permanent employees to our contractors and vendors.

Structural responsibility for HSE rests with our Board of Directors, which maintains oversight of HSE performance through its HSE Committee, which has regular and direct communications with our Executive Committee and senior management teams. Management responsibility for HSE rests with all of our Executives and operationally with our Vice President, International & HSE, who leads strategy and

performance. In addition, the leaders of each of our business units are responsible for HSE performance within their operations, supported by specialist HSE staff.

HSE commitment and leadership is engrained in Vermilion's leaders, through visible and active participation. They set the tone, provide the vision and resources required to achieve our HSE objectives, and actively participate to ensure the importance of HSE is well understood and a high standard of compliance is maintained. This is supported by our performance management system, which includes an HSE leadership objective for all leaders, connecting leader compensation directly to HSE and ensuring that HSE is viewed as a priority for every leader and every team in the organization.

We also strive to engrain safety and environmental awareness throughout all facets of the organization, not just in our field operations. We believe our HSE mantra emphasizes that keeping people and the environment safe isn't just up to the HSE or operations departments, but involves every individual, whether they work as a technician in the field, an accountant in the office, or as a volunteer in the community during a Day of Caring.

To support this, we hold a variety of meetings with participants that include our senior management team and HSE advisors from all divisions and subsidiaries, representing 100% of our staff; these include weekly management and operations meetings, quarterly meetings with the Board's HSE Committee that includes our senior leadership, and a monthly HSE Managers' meeting that focuses on sharing lessons learned from each of our operations.

HSE in Our Operations and Supply Chain

We require third-party contractors and sub-contractors – our vendors – to be HSE pre-qualified prior to commencing service work. This helps ensure that they have an HSE program in place that meets or exceeds our requirements. We also observe and interact with our vendors on an ongoing basis to ensure that they are adhering to Vermilion's HSE practices, procedures and rules. This is supported by our Contractor Selection and Management Standard. We hold mandatory monthly HSE meetings in every field district that all staff (field and administration) attend and senior management routinely participate in. On a quarterly basis, the HSE district meetings are replaced by HSE-focused town hall meetings that include our vendors. This practice results in a better understanding of Vermilion's HSE requirements, and an improved understanding of where and how we can provide better support to our vendors.

Our site and work procedures also provide strong oversight of staff and contractor activities. For example, safety and environmental certifications, such as H2S and enclosed space training, must be current and in place; we track and monitor these for staff, and require proof of certification for vendor staff. Hazard identification is a key part of every job and as a result, Vermilion work permits are required in order to enter our locations, and registration is required on our roads and sites, to ensure that we know who is on site to do what work, and when. Appropriate Personal Protective Equipment (PPE) is provided by Vermilion or the contracting company as appropriate, and is a requirement to access our sites. Working conditions are also clearly identified and monitored, including maximum working hours per day (which include driving time to and from our locations).

In addition, staff and contractors must complete online training prior to arriving on site, to ensure that they are familiar with our most important HSE procedures. In Australia, those traveling to our offshore platform must undergo further training, to support critical platform and helicopter safety procedures.

With regard to our supply chain, our Contractor Selection and Management Standard and associated guidelines and tools includes specific activities to support HSE performance: for example, having the Vermilion staff member responsible for the vendor provide information and briefings on our Code of Business Conduct and Ethics and our HSE program requirements, including our High 5 personal safety initiative and site-specific hazard awareness.

5 Key HSE Focus Areas

We believe there are clear linkages between strong HSE performance and strong business performance. We focus on five key pillars of HSE performance to enhance our ability to advance our HSE priorities and reduce our risk, which helps us ensure worker and public safety, environmental protection and the delivery of superior business results — now in the longer term.

HSE Culture

2030 Vision and Outcomes:

- The consistent and continual application of our core values results in an ownership culture at all levels of the organization. Culture drives our behaviour, resulting in a high reliability organization where HSE is fully integrated into our business; it is a way of life.
- We have a culture and attitude of ownership where all employees and contractors have a high level of personal responsibility to
- The importance of HSE is communicated and demonstrated clearly and consistently from senior

leadership at every opportunity
- Visible commitment from leaders at all levels of the organization – everyone is a leader

Communications & Knowledge Management

2030 Vision and Outcomes:

- Continuously learns and shares information to improve performance
- Values training and validates competencies
- Demonstrates reliable data systems, analysis, trending and generation of improvement actions

Management Systems

2030 Vision and Outcomes:

- Our HSE Framework is fit for purpose across the business and integrated into everyday business process and activities with a defined relationship to our Management Systems.
- Has a robust HSE Framework that has a broad array of systems, standards, practices and procedures to identify hazards and manage/reduce risk
- Demonstrates regulatory compliance
- Provides important organizational focus to low probability, high consequence events

Health

2030 Vision and Outcomes:

- The H in HSE is defined and includes physical, mental and occupational health components
- Our organization identifies and provides mitigations for employee health risks

Environmental & Operational Stewardship

2030 Vision and Outcomes:

- Robust auditing process that drives change in the application and integration of the Management System objectives and expectations.
- Integrates sustainability policy and practices into business strategies and performance measures
- Considers that HSE and sustainable development has a direct correlation to business success

Our HSE Framework

Three Management Systems form our HSE integrated framework, which starts with our core values and extends to a robust set of Standards, Practices and Procedures. Our HSE Management System (HSE MS), Asset Integrity Management System (AIMS) and Process Safety Management System (PSMS) provide the formal structure that helps us foster a workplace culture where HSE is always a priority. The HSE MS manages personal or behavioural safety, while process or technical safety is managed through AIMS and PSMS.

These systems reflect industry best practice and ISO principles to ensure that HSE issues are systematically identified, controlled, and monitored.

In addition, our German business unit is certified to ISO 50001 for energy management, and our Ireland business unit is certified to ISO 14001 for environmental management.

HSE Management System

Our HSE MS provides the structure for the delivery of our HSE policy and commitments, including areas of corporate ownership and responsibility, with the objective to increase consistency across the organization in its development and implementation. By following the HSE MS's action steps of Plan, Do, Check & Correct – which provide a process for continual improvement – we identify and manage health, safety and environment hazards and risks associated with our company's global operations. Elements within the system include:

- Management, Leadership and Policy
- Corporate and Social Responsibility
- Risk Management
- Management of Change
- Training and Competency
- Operations and Maintenance
- Contractor Management and Procurement
- Emergency Preparedness, Management and Response
- Incident Management
- Security Management
- Documents and Records
- Performance Management

Asset Integrity Management System (AIMS)

AIMS serves as the framework of processes and procedures that helps us execute safe and reliable asset operation, and includes elements such as our Tank Integrity Management System, Pipeline Integrity Management System, and Pressure Equipment Integrity Management System. . Through AIMS, we understand when work on an asset needs to be performed, how much it will cost, and where to start. Perhaps even more importantly, it helps us understand the impact and cost if no action is taken. Adherence to quality standards and practices, effective testing and inspection of equipment, quality of spare parts and repairs, and correct control of operating parameters are all within the scope of AIMS. A successful AIMS helps us improve operational safety, reduce spill volumes and frequency, increase overall reliability and life expectancy of assets through cost effective measures, assure proper management of high risk assets, implement best practices in managing our assets, and ensure compliance with regulatory requirements.

Like our HSE MS, it is a tiered, integrated documented system:

Process Safety Management System

PSMS serves as the "backbone" of how we manage process safety. This is a blend of engineering and management skills focused on preventing high impact, low probability events and near misses, such as fires, explosions, well blowouts and damaging releases associated with the loss of containment of energy or dangerous substances. It applies to our entire activity spectrum, including Production, Facilities and Storage, Construction, Acquisition and Divestment, Abandonment/ Reclamation/Remediation, Exploration, Drilling, Completions, Workovers and Transportation.

Our PSMS is comprised of 14 interactive elements that identify key responsibilities and requirements, and is based on a Plan-Do-Check-Correct cycle. This helps us identify hazards, manage risk, eliminate or mitigate potential environmental impacts, operate safely and reliably, develop and share best practices, drive operational discipline, and support continuous improvement. In addition to our overlapping HSE MS Elements, PSMS also includes Process Hazards Analysis, enhanced Management of Change, Mechanical Integrity (integrates AIMS). Each of these Elements has specific Standards, Practices, Procedures and Guidelines to ensure the Element objectives and expectations are being met.

HSE Measurement, Evaluation and Adjustment

The foundation of our event management is our corporate Event and Environmental Management Information System (EEMIS), a web-based system accessible to all staff that collects information about potential hazards, near misses and incidents and the actions taken to resolve them. This includes HSE, regulatory and public complaint incidents, covering immediate and root cause details, actions taken, and preventive measures to avoid repeat incidents. [403-2c]

Because of the potential risk to our people, the public and the environment, our Executive Committee members are immediately informed of all high potential near misses, recordable injury events and serious incidents via our EEMIS. Lost time incidents and serious events are also reported to all staff throughout the company, focusing on learning and prevention. Our data collection, methodologies and tracking have consistently improved over time. This baseline has progressed into trend analysis, which allows us to assess identified hazard exposures, root causes and Management System gaps, with particular consideration given to our top fatal risks. This work, augmented by our triennial HSE Perception Surveys, allows us to identify additional areas for improvement such as the implementation in 2021 of the Life-Saving Rules.

Vermilion uses a variety of HSE performance measurements that provide timely information on the progress and current status of the strategies, processes and activities to manage risk and safety. These are reported internally on a real-time, monthly, quarterly and annual basis, with select metrics included in our sustainability reporting.

We focus on the development of meaningful leading indicators that tell us how effective we are at identifying and reducing hazards in the workplace. These include activities such as contractor observations, site inspections, finding closeout, compliance/regulatory inspections, management and staff participation in safety meetings, and site visits. They also measure the development activities influencing safety performance and continuous improvement.

We recognize that to adequately assess HSE performance, we need to take a balanced approach by also measuring outcomes. These lagging indicators include elements such as severe injury incidents, recordable injuries, motor vehicle accidents, liquid spills and release volumes, compliance and annual total recordable injury frequencies.

However, we realize that lagging indicators are reactive in nature, can be a poor gauge of prevention, and sometimes may lead to falsely interpreting low injury rates as an absence of risks. We therefore prefer to concentrate on more proactive performance measures.

HSE Performance Linked to Executive and Employee Compensation

Our HSE KPIs are included in the calculation of our Corporate Performance Scorecards for:

- *Bonus, or 1-year performance (10% weighting), based on an industry-best-practice set of leading indicators (inputs) such as observations, HSE inspections and key HSE prevention projects, and lagging indicators (outputs) such as severe injuries, motor vehicle incident count and total liquid volumes released. Key HSE projects are also selected and evaluated based on their event prevention potential.*
- *Long term incentive program, or 3-year performance (via the significant HSE contributions to CDP Climate, S&P Global Corporate Sustainability Assessment and Sustainalytics rankings, which carry a 10% weighting).*

By including HSE as a metric in our scorecards, we ensure management continues to focus on HSE performance. As such, they directly impact all employee and executive compensation.

HSE Training and Communication

Vermilion's HSE Focus Areas of Communications & Knowledge management highlights continual learning and information sharing to improve our performance and helps validate competencies across the organization.

HSE Competency for Leaders

Vermilion is committed to ensuring all of our staff understand the importance of HSE and demonstrate this in their actions. All Vermilion's leaders – whether operational or functional – contribute to Vermilion's success by generating HSE awareness, identifying hazards, and understanding and mitigating the HSE impact of requests made of staff and operations. That's why our Performance Management system includes an HSE Competency for Leaders:

Demonstrates HSE Leadership:

- Visibly acts in accordance with all HSE policies, standards, procedures, legislation and core values
- Engages staff to identify and mitigate hazards and risks in order to fully integrate HSE into Vermilion's day to day culture, and
- Facilitates the sharing of HSE lessons learned.

We expect our leaders to act in accordance with our Core Values, HSE policies, Management Systems standards, procedures, and legislation, and to:

- Understand HSE requirements, make them a priority and integrate them into daily activities
- Walk the talk, not hesitating to intervene for the safety of all staff
- Report unsafe situations, be willing to be challenged and follow up on commitments
- Believe in continuously learning and take an active role in safety meetings, investigations and reviews.

We provide resources to help our leaders understand what success looks like. This focuses on :

- Our HSE Journey
- Human Behaviours
- Communication
- HSE Reporting and Investigations
- Hazard Recognition
- Risk Management, and
- New and Inexperienced Workers

Operator Competency

We have developed a comprehensive HSE training matrix for all technical positions at Vermilion globally – from field operators to senior professional staff – that identifies the associated mandatory and recommended HSE training requirements. Operator competency supports hazard identification and mitigates our exposure to a potential HSE event by ensuring that staff are properly trained to safely execute their daily tasks. A clear view of employees' competencies and training increases Vermilion's confidence that job functions are being performed safely and consistently within regulatory and Vermilion-specific policies, practices and guidelines.

We have advanced our Operator Competency Programs (OCP) in Canada, France, The Netherlands and Australia. These projects have included knowledge identification, task inventory and procedures, SOP development and levels of assessment.

This work will help us fulfill our HSE vision of a healthy workplace free of incidents, but will also support more effective workforce planning, and increase employee satisfaction and productivity.

HSE Training

Additional HSE training takes many forms throughout our organization, and includes external certifications, internal courses and seminars on topics such as HSE leadership training, hazard awareness and management, functional process hazard and risk analysis, incident investigation, first aid, ergonomics, road safety, work management, regulatory updates and personal safety. In addition, our lunch and learn programs encompass HSE topics related to work and beyond, including safe driving and safety at home.

HSE Communications

We believe that regularly communicating key HSE information supports our focus on culture, helping to create an environment of empowerment, trust and accountability. Our communications strategy therefore focuses on multi-layered, formal and informal communications via a variety of channels:

- Regular visibly active leadership and communication by our executive team
- Strong HSE messaging from our business unit leadership
- Accessible HSE information and documents available through our intranet and shared team sites
- Quarterly reporting of HSE KPIs to all staff via our intranet, and to our leadership, including the Board of Directors

- Mandatory monthly HSE meetings in every field district that all staff (field and administration) attend and senior management routinely participate in. Quarterly, the HSE district meetings are replaced by HSE-focused town hall meetings that include our vendors (third party contractors).
- Regular HSE Leadership meetings at the corporate level, with participants that include our senior management team and HSE advisors from all divisions and subsidiaries, representing 100% of our staff.
- Safety discussions in team meetings, led by both leaders and staff to encourage continuous focus on hazard identification and management
- Global HSE Perception Survey held every three years to seek feedback from all staff, in addition to business unit-specific Perception Surveys held more frequently, and HSE-focused questions within our annual Great Place to Work staff feedback survey
- HSE focus in all communications, including administrative matters, to ensure HSE messaging includes a focus on office as well as operational staff
- HSE stories on our intranet, with content encouraged from all staff members throughout the business

Safety Dashboard

HSE: Everyone. Everywhere. Everyday.

SDG	Target	Vermilion's Contribution
	3.6 Halve the number of global deaths and injuries from road traffic accidents	We have identified transportation, including driving, as one of our top fatal risks, and included it in our risk management priorities.
	8.8 Protect labour rights and promote safe and secure working environments for all workers	Safety of workers and communities is Vermilion's highest priority; we continually improve our HSE Management System to support this, and report robust KPIs annually.
	12.2 Achieve the sustainable management and efficient use of natural resources	Avoiding or mitigating the environmental, health and safety-related impact of our production processes is integral to Vermilion's approach to responsible and safe operations.

Total Recordable Injury Frequency (TRIF)

TRIF based on incidents per 200,000 hours is shown from 2017 to 2021 and as a 5-year average. In this period, we have had a number of acquisitions that required us to integrate new operations into our business, including several that required implementation of our higher HSE standards.

COVID-19

Vermilion continues to monitor health and safety concerns due to COVID-19, focusing on maintaining a safe, healthy workplace for both field and office staff while ensuring business critical activity continues. Our teams work together to evolve comprehensive practices, procedures and communications to help our people protect themselves and each other.

Although we have returned to a more normal work environment, we have implemented a remote working pilot two days per week, and we continue to emphasize mental health and ergonomic concerns to support our people no matter where they are working.

Commitments and Progress

2020 Targets	2021 Targets	2022 Targets
Implement and roll out the new Environmental and Event Management Information System (EEMIS) globally	Implement additional elements of the Environmental and Event EEMIS globally	Conduct the triennial HSE Perception Survey globally
100% achieved	*100% achieved*	*100% achieved*
Develop competency around the completed Operational Risk-Management Standard, Environmental Management and Global Marine Operator Standards	Complete Process Safety Management System document with roll out and training	Complete Process Safety Management System document with roll out and training
100% achieved	*In progress*	*In progress*
Develop and roll out Contractor Management Standard and Guidelines Document	Update Fatal Risk Program using the Life-Saving Rules program	Re-apply the Corporate Compliance and Assurance Standard
100% achieved	*100% achieved*	*In progress*
	Update 2030 HSE Strategy with short and long-term action plan and communication plan	Review and update the HSE Leadership Training Program
	100% achieved	*100% achieved*

Canadian Occupational Safety Magazine's 5-Star Energy and Resource Companies Award

Vermilion received this award in 2022, among 13 companies the magazine recognized for their strong ESG program, a measurable environmental and social impact, and a solidified health and safety policy.

Our Approach to Safety

At Vermilion, we are committed to our vision of **HSE: Everywhere. Everyday. Everyone.** We are focused on ensuring everyone who comes to our locations returns home safely every day.

Management

In addition to our overall HSE Framework that is made up of our Core Values, Vision and HSE Policy, supported by our HSE Management System, Asset Integrity Management System and Process Safety Management System, we have established practical tools and processes that are specific to the protection of the health and safety of our workers and our communities.

In particular our **Operational Risk Management Standard** provides a consistent, systematic approach to integrating risk assessment (identification, analysis and evaluation), risk treatment (tolerability, mitgation and management action plans), risk acceptance, and monitoring and review into all parts of our business.

This is supported by our **Contractor Selection and Management Standard**. This provides requirements for hiring and managing contractors and sub-contractors (contractors) to conduct work, deliver goods, or supplies services to Vermilion Energy Ltd. (Vermilion), including the minimum requirements to identify, evaluate and approve contractors, and describes the phases of the contracting lifecycle requirements using a risk based approach, including pre-qualification, supervision and verification.

Our **Corporate HSE Compliance Assurance Standard** provides a set of audit and assessment requirements, including intended scope, frequency, objectives and stakeholders for each.

Public Safety and Emergency Response Program

We understand and accept the high expectations placed on us by our stakeholders to ensure Vermilion recognizes, considers and mitigates potential safety impacts on the residents in the communities in which we operate. Ensuring public safety has been, and will continue to be, our number one priority. This is our license to operate.[413-2]

We have communication plans in place throughout our global locations, including outreach to our communities and nearby landowners. For example, our Corrib operation in Ireland includes online community emergency response information for both the Corrib Gas Onshore Pipeline and the Bellanaboy Bridge Gas Terminal.

We follow the globally accepted Incident Command System (ICS), which applies to all kinds of emergencies, large and small. It is applied consistently with local emergency responders and across each operating area, and provides a common organizational structure and communications strategy to aid the management of resources.

Simulations and exercises are organized throughout the year to train our people and test the effectiveness of our emergency response plan (ERP) under various scenarios.

We also evaluate the effectiveness of every exercise and ERP that is conducted.

Level 1 ERP
Table top exercise – Includes discussion of various emergency scenarios, cross training of ICS roles and responsibilities.

Level 2 ERP
In-Country Operations-only Simulation – Includes the mobilization of business unit staff, first level of scenario role playing.

Level 3 ERP
Simulation includes Vermilion's Corporate Command Team Activation. Corporate Command owns corrective action logs and improvement schedule. Role playing of all Vermilion personnel involved.

Level 4 ERP
Simulation includes Vermilion's Corporate Command Team Activation and external parties (other industry, emergency responders, government authorities, other external stakeholders).

Life-Saving Rules

In 2021 and 2022 we implemented the IOGP/Energy Safety Canada Life-Saving Rules, to focus attention on key actions that will prevent fatal injuries during higher risk activities. These rules are specific to the oil and gas industry, and provide our staff and contractors with consistent actions and approaches, no matter which worksite they are working on.

This is an evolution of our previous work on identifying and managing fatal risks, and incorporates strong management programs, including hazard identification and risk management, competency and risk-specfic training.

For example, we hold regular road safety training and awareness events in our business units, and we monitor proactive indicators of road safety in our fleet vehicles, including overall speed and hard braking events, in addition to outcome indicators such as incidents.

Vermilion HIGH 5

We developed this personal safety awareness program as part of our commitment to continuous improvement, including reducing workplace-related injuries. The tool provides a simple checklist of five questions to confirm if it is safe to proceed with a task, or if we need to stop and regroup.

If the answer to any of the preceding five questions is no, all work must be stopped, the task reassessed using a hazard-risk-mitigation methodology, and all required actions implemented to ensure a safe workplace. Only once the answer to every question is yes may work start or resume.

Tools such as these have been rolled out globally to our staff and vendors. They don't replace any design, technical and administrative layers of protection that we already have in place, but are an additional layer of defence to achieve safe performance. They can also live beyond the work site: we encourage our staff to use the tools in our offices and everyday lives, increasing awareness of possible hazards that can impact safety.

Measurement and Evaluation

Vermilion uses a variety of safety performance measurements that provide timely information on the progress and current status of the strategies, processes and activities we use to manage risk and safety. We focus on developing meaningful leading indicators that tell us how effective we are at identifying and reducing hazards in the workplace. These indicators also measure development activities, influencing safety performance and continuous improvement. [403-1]

To adequately assess safety performance, we take a balanced approach by measuring outcomes such as recordable injuries. However, such lagging indicators are reactive in nature, can be a poor gauge of prevention and sometimes may lead to falsely interpreting low injury rates as an absence of risks in the workplace. We therefore prefer to concentrate on more proactive measures of performance.

Our leading and lagging KPIs are published monthly on our intranet to allow staff to follow their progress on hazard awareness and risk management. The KPIs also contribute to our corporate performance scorecard, thereby influencing short and long-term incentive compensation for all employees and executives.

As part of our overall safety management processes, we fully investigate all incidents and near misses, and implement corrective actions, guided by our Fair Culture policy. We also communicate lessons learned across our business units to continuously improve our performance.

External verifications include Equitable Origin's EO100™ Standard for Responsible Energy Development, for our West Pembina sites in Alberta, the Business Working Responsibly Mark for our Ireland Business Unit, and the AFNOR "Committed" label in our France Business Unit (the latter two are based on ISO 26000).

HSE Perception Survey

Each of our employees and contractors plays a critical role in our HSE performance, and in establishing and maintaining a safety-oriented workplace. We therefore conduct HSE Perception Surveys every three years, confidentially surveying our staff to learn about their perceptions of 10 overarching safety climate factors:

- Management Commitment
- Team Functioning
- Morale
- Supervisor Commitment
- Incident Outcomes
- Personal Responsibility for Safety
- Organizational Commitment
- Fair Culture
- Safety Procedures

The survey:

- Provides a snapshot of staff perceptions about how safety is being managed
- Tracks the health of our Safety Culture over time
- Encourages employees and contractors to participate in and contribute to safety programs and initiatives
- Communicates throughout Vermilion our key strengths and areas for improvement, and
- Feeds into the HSE Plan and focuses the organization on critical items, ensuring a practical program.

To date, we have conducted surveys in 2013, 2016, 2019 and 2022. This provides the timeframe required to clearly understand the outcomes, and effectively plan and implement the actions required to respond to or address the findings.

All surveys received a staff response rate of over 85%, creating a solid baseline measure of staff perceptions of how we are managing safety.

In all four surveys, all factors received favourable scores (above 3.5/5), with particular strengths in personal responsibility for safety, and the commitment to safety at the management and supervisor levels. Staff identified opportunities for improvement as well, and we continue to use those learnings to identify focus areas.

The 2013 survey resulted in the implementation of our Fair Culture policy, in response to feedback that Vermilion's incident investigation and resolution process was not sufficiently clear.

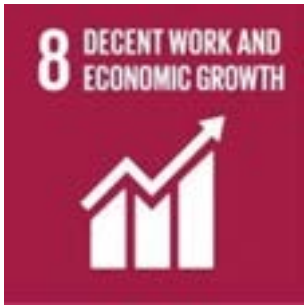
Other examples of actions taken as a result of the survey feedback include advancement of our Competency Programs and updates to our Event Management Practice.

The 2016 survey highlighted training and competency programs, along with communications, as areas where we could improve, including making HSE documents and procedures easier to find, and improving our incident management software. As a result, we began a project to identify alternatives for and selected a new Event and Environmental Management Information System (EEMIS).

The 2019 survey showed overall positive trending, while identifying areas to improve that included making our safety procedures easier for people to understand and use, and additional focus on training and development, communication, and mental health. We successfully developed and implemented our new reporting software, and focused on communicating workplace and personal safety.

In 2021, our People and Culture department launched Vermilion's mental health and wellness program, including a business-wide, online mental health support program called Not Myself Today, which provides 24/7, confidential access to a wide range of education and resources for staff and leaders.

Our 2022 survey is now complete, and we are evaluating the detailed findings and feedbacks to use in the action planning process across the company.



Feature: Safety Case Revision in Australia

Like all offshore production facilities operating in Australian Commonwealth Waters, Vermilion's Wandoo Facilities are required to have a Safety Case and Environment Plan that are assessed and accepted by the Regulator, NOPSEMA. The Safety Case and Environment Plan are objective- and evidence-based assessments requiring the Regulator to be satisfied that:

- The identified hazards and potential impacts are suitable for the Wandoo Facilities
- Hazards are assessed and managed to as low a level as reasonably practical, and
- A management system is in place to support and monitor implementation of hazard controls on a continual basis.

The Safety Case and Environment Plan require review and resubmission at a minimum frequency of five years, with regular inspections by NOPSEMA to confirm compliance in the meantime.

The Safety Case is focused on the prevention of major accident events. Vermilion is required to identify, assess and manage major accident events through a series of formal safety assessments, including flammable hazards analysis, explosion risk assessment, and Escape, Temporary Refuge, Evacuation and Recovery Analysis. Throughout 2019, Vermilion undertook a five-yearly review, the outcomes of which were accepted by the Regulator in 2020.

The Environment Plan addresses the environmental impact from operations, well construction and oil spill response. We undertook a comprehensive environmental risk and impact assessment for all our activities within the Wandoo Field, and received NOPSEMA approval in 2021 for our:

- Wandoo Facility Environment Plan
- Wandoo Well Construction Environment Plan
- Oil Pollution Emergency Plan

The Safety Case and Environment Plans require engagement with relevant stakeholders. The Safety Case process regularly engages the workforce throughout the assessment processes. The Environment Plan requires consultation with stakeholders that may be directly impacted by our day to day activities.

Feature: Wandoo Life Extension

Given the significant capital expense and potential environmental impact involved in new offshore platform development, it makes sense to operate and maintain existing infrastructure safely and responsibly for as long as possible. Vermilion's expertise in this area is aiding our Wandoo Life Extension project, which is in process to verify that the design and physical integrity of the Wandoo field facilities in our Australia operations are suitable for production beyond the original design life. This will ensure that we remain compliant with local legislation and regulations, and continue to operate safely.

The original design life for the Wandoo A (WNA) unstaffed platform facility was 15 years from installation (October 1993). The WNA design life has twice been validated and extended for 5 years each, in 2008 and 2013. The structure is currently undergoing design verification to extend the design life again by 5 years to October 2023.

The original design life for the Wandoo B (WNB) staffed facility and export system was 20 years from the time of installation (March 1997). The WNB platform structure, all Wandoo topside facilities and the export system are currently undergoing design verification to extend their design lives for most systems by 20 years to March 2037. Some subsystems, such as the subsea flowlines, have been verified for a 10 year period and will be reassessed when that period finishes.

Life Extension Process Overview

- Vermilion undertakes extensive site surveys of the existing facilities to determine their current condition, identify areas for maintenance and repair, and verify their condition for ongoing use, including super/subsea structures, subsea system, marine system, safety systems, wells, and topsides. and the Wandoo A platform.
- Vermilion develops a Basis of Analysis that presents the criteria to be used to reassess each subsystem of the assets (such as the platforms, flowlines and CALM Buoy); the design and operating facilities are assessed against current codes and standards using updated knowledge and data.
- The latest meteorologic ocean data (wave, wind and current) and seismic loads are developed by subject matter experts.
- Each subsystem of the asset is then reassessed and the results compared to the latest codes and standards.
- If the reassessment is supported by the Independent Verifying Body (IVB), Vermilion is issued with a Verification Certificate allowing us to operate the facility for the agreed future period.
- Vermilion has selected Lloyds Register as the IVB, a recognized expert that meets our independence and competency requirements, to review the analysis and systems.

Project Progress

- The original design life for the subsea flowlines was 20 years from the time of installation (October 1996). The flowlines and export system design have received IVB verification, extending their design lives by 10 years to October 2026. This 10-year life extension, based on the flexible flowline's in-place strength, on-bottom stability and material limits, is an Australian industry first.
- Most other systems have been verified for a 20 year period out to 2036, which will most likely cover to the end of Wandoo field life.

Environment Dashboard

HSE: Everyone. Everywhere. Everyday.

For more information on climate-related environmental reporting, including emissions, commitments and progress, please see our TCFD section.

SDG	Target	Vermilion's Contributions
	6.1 Ensure the availability and sustainable management of water for all	We focus on water stewardship, both in our marine environments (6.6) and from a conservation perspective (6.4). We report on water metrics (6.3), and we participate in multi-stakeholder partnerships (6.1 & 17.17)
	7.2 Increase the share of renewable energy in the global mix	Vermilion is developing expertise in geothermal energy projects while also focusing on reducing energy consumption through infrastructure renewal in all of our business units.
	7.3 Reduce energy consumption	
	12.1 Ensure sustainable production patterns	Avoiding or mitigating the environmental, health and safety-related impact of our production processes is integral to Vermilion's approach to responsible and safe operations. We are incorporating sustainable development into our business strategy (12.1), striving for increased energy efficiency (12.2) and expanding our sustainability reporting (12.6).
	12.2 Achieve the sustainable management and efficient use of natural resources	
	12.6 Encourage companies to adopt sustainable practices and integrate sustainability information into their reporting cycle	
	13.1 Combat climate change	We are proactively identifying risks and opportunities, reporting on emissions and other key data, setting internal carbon prices, and working on target setting.
	14.1 Conserve and sustainably use the oceans for sustainable development	We comply with or exceed regulations regarding wastewater and marine environment management, proactively improving western Australia's capacity for oiled wildlife recovery.
	14.2 Sustainably manage marine and coastal ecosystems	
	15.1 Protect, restore and promote sustainable use of terrestrial ecosystems	Vermilion has environmental impact assessment procedures that comply with or exceed all regulations in our business units, and we proactively work to ensure our operations protect local biodiversity
	15.5 Take urgent action to reduce or halt biodiversity loss	

Our Approach to Environmental Stewardship

Protecting What's Important

The diversity and beauty of the environments in which we operate and live are daily reminders of the value of protecting the environment. To do so, we not only operate in compliance with all environmental regulations across all business units, but strive to lead the development of industry best practice in our operations worldwide in order to fulfill our commitment to continuous improvement in HSE and sustainability. In addition to continuing to build processes to meaningfully track and understand our sustainability impacts, we are committed, wherever feasible, to use processes that will reduce our environmental impact.

This is embodied in our strategic business plan within the Integrated Sustainability objective's Conservation focus, which includes:

Water

We recognize water as a basic human right, and as a vital resource that is shared among many stakeholders in our communities. We are therefore committed to protecting both the supply and the quality of water sources in our areas of operation by:

- Proactively preventing harm and supporting healthy surface and groundwater bodies
- Reducing potable and freshwater usage to the lowest level practical, and
- Taking a lifecycle and circular economy approach to water, exploring opportunities to reuse and recycle products such as produced water

Asset Retirement

We are adapting our long-term Asset Retirement Obligation management to include revitalizing or reusing assets to benefit our environment and our communities.

Biodiversity

We are focusing on protecting the species and habitats around us by proactively identifying biodiversity risks and opportunities, and implementing associated plans.

Management

In addition to our HSE Management System and Risk Management process, we have established additional management tools and processes specific to environmental stewardship. 304-1 304-2 413-1

Environmental Impact Assessments

We conduct Environmental Impact Assessments and implement management plans as required by regulations in all business units, and wherever needed based on conditions in our operating locations. This includes, but is not limited to, the following examples:

Canada: We include a desktop review and environmental scouting report as part of our project development process. This identifies areas and species of concern. Over the years, this has helped us identify a Key Wildlife and Biodiversity Zone for ungulates such as deer, elk and moose. During the critical winter periods, when food sources are lower quality and less accessible due to cold temperatures and deep snow, these animals survive by, in part, minimizing their energy expenditures through reducing their movements in their winter ranges. We therefore ceased operations, including drilling, in this location between January 15 and April 30, to minimize disturbance during this critical period. In addition, we have identified various bird species, such as swans and sandhill cranes, which we have protected by moving our planned site.

France: In addition to completing EIAs, we collaborate with external consultants and experts to ensure that our activities support scientific research whenever possible. This resulted in a new species of marine worm being identified off the coast of France. Vermilion's role in providing both data and material were noted in a scientific paper that identified the worm, named Auchenoplax worsfoldi, which has now been added to the World Register of Marine Species.

The Netherlands: EIAs are part of the permitting process, and are carried out prior to an environment permit being granted for exploratory drilling and for production. In addition, we work closely with environmental experts to guide our activities to ensure that we do not disrupt or disturb wildlife migration, feeding or breeding patterns. In some cases, this means that we delay or reroute development. This includes our Diever-02 well site, where we delay pipeline construction and other activities annually to ensure we do not interfere with nesting birds.

Germany: EIAs are part of the permitting process. In 2020-21, the oil and gas industry in our region worked with the government to commit to drilling no new wells in water protection areas, which are designated areas to protect the groundwater. We are also part of a joint industry-government working

group that is addressing additional technical measures related to environmental and groundwater protection.

Central and Eastern Europe: We are evaluating exploration opportunities available on our land base. As we complete these assessments, we will present exploration activity plans to partners and authorities as well as public and community stakeholders. These plans will reflect our efforts to minimize the environmental and social impact of our activities. EIAs are a critical element of the acceptance and permitting process, and we will ensure that they are conducted in the most rigorous manner feasible.

Ireland: As part of the construction of the Corrib gas pipeline and terminal infrastructure, a detailed EIA was conducted; for new activities, an EIA screening is conducted by an independent expert. Should the screening identify that significant effects on the environment are likely, a full EIA is conducted. The original EIA resulted in a biodiversity action plan that spanned the years 2014 to 2019. This has resulted in a project design that has demonstrated a Net Positive impact for biodiversity by 2020, including the protection and monitoring of habitats and species, and a commitment to consultation with stakeholders and other interested parties. In 2021, we released our second Biodiversity Action Plan (2021-2026) - highlights are included in our Biodiversity section.

Australia: We have developed a detailed environmental impact assessment of the marine environment around our operations on the northwest shelf of Australia's west coast, including our direct permit area and a wider surrounding area, where either planned or unplanned events may create impacts. In addition to analyzing the biodiversity of the area, current and traditional uses, and areas of significant environmental value and cultural heritage, we have conducted a risk assessment workshop that considers the regional environment and the local marine ecosystem. The resulting environmental plan ensures that our systems, practices and procedures meet the plan's defined performance outcomes and standards and all relevant legislative requirements. The commitments associated with these outcomes and standards contribute to ensuring that the residual environmental risk associated with our operations is as low as reasonably practical. We have also developed a range of performance standards (controls) that will be implemented throughout the life of the Wandoo field to ensure the potential environmental impacts identified through the risk assessment are managed appropriately. In 2021, the latest revision to the Wandoo Facility Environment Plan (which can be found here) was accepted by NOPSEMA, the regulator.

United States: We conduct comprehensive EIAs in our US locations that include cultural and paleontological surveys prior to any ground disturbance. We are vigilant during construction, and committed to having paleontologists and other scientific experts on hand to ensure we not only meet all regulations, but also take care of fossils or other important items. In 2015, that's how we found a triceratops skull as crews started to build out one of our well pads. The skull was moved to the Denver Museum of Nature and Science.

Project Development and Management

Our project management framework includes issues related to climate change and sustainability such as regulatory change, water use, emissions reduction and footprint reduction to reduce ecosystem fragmentation. We begin by ensuring compliance with regulatory requirements and standards, and alignment with Vermilion's economic assessment criteria at the investigation phase of the project. Other factors include:

- **Employee Engagement:** Staff feedback is taken into account by the groups responsible for managing emissions quantification and sustainability initiatives.
- **Financial optimization:** Emissions reductions and other environmental stewardship impacts are driven by the optimization activities in our business units, and identified at the project assessment stage for both new and existing construction. Added value and responsible, sustainable development of resources are primary investment drivers. The activities are typically identified by the in-country technical teams.
- **Multiple benefits potential:** Many initiatives that support Vermilion's operational excellence and stewardship also have the effect of reducing emissions and other environmental impacts, through the reduction of fuel, energy or water, or the protection of land and biodiversity. These benefits are identified during the investigation phase of a project assessment.

Our global technical teams collaborate on current and upcoming sustainability initiatives, and bring in technical expertise to augment project execution.

Measurement & Evaluation

Internal Approach: We assess this based on a framework of measurement, reporting and adjustment, including the following:

- A comprehensive climate and environmental risk matrix analysis ,with key environmental performance indicators that we monitor monthly and report on annually
- Technology and process assessments, including operational and engineering reviews aimed at increasing efficiency, and reducing emissions and cost requirements
- Anticipated and actual legislative and regulatory change assessments, with potential impacts, and
- GHG Quantification Methodologies study and Emissions Long-Range Planning tool

External Approach – Regulatory and Reporting Framework: The following table illustrates key reporting and regulatory bodies under which we operate:

Location	Reporting Body	Actions
All Business Units	CDP Climate Change and CDP Water Security	We initiated reporting under CDP Climate in 2014, beginning with a base year of 2012, and CDP Water in 2020, with a base year of 2019.
All Business Units	Montreal Protocol	We have phased out Freon-22 in our C3 cooling plants in Netherlands to reduce the risk that this substance could be released.
Canada	Greenhouse Gas Reporting and National Pollutant Release Inventory reporting under the Canadian Environmental Protection Act	Federal Greenhouse gas reporting regulated by Environment and Climate Change Canada for facilities over 10,000 tonnes CO2e per year. Vermilion has around 10 facilities reporting into this regulation, dependent on facility production and activity levels.
Canada	Greenhouse Gas Pollution Pricing Act	Vermilion has opted-in to both the Alberta TIER program and to the Saskatchewan Carbon Tax output-based pricing system, which directly interact with the Federal GGPPA
Canada	Alberta's Directive 060 Methane Regulations Alberta's Directive 039 Alberta's Environmental Protection and Enhancement Act	Regulation aimed at reducing vented emissions from process equipment, tanks, and other field related sources, also requiring upgrades to low or no emission process equipment. Fugitive emission leaks are also addressed in this regulation for all production. Regulation directed at reducing and eliminating the release of benzene emissions from glycol dehydrators Regulates large facilities under a formal approval process, and outlines requirements for conservation, water management, substance release, and waste management
Canada	Saskatchewan's Directive PNG036 & PNG-017	Formerly Directive S-10, this provides regulatory requirements for reducing flaring, incinerating and venting of associated gas, including financial penalties for methane emissions in excess of defined limits.
Europe	European Union Emissions Trading Scheme	Our European operations meet the reporting threshold (total thermal rated input capacity greater than 20MW) only in Ireland. Under the revised EU ETS Directive in effect 2021-2030, it is anticipated that there will be an active market and consumers for the offset credits generated via our sustainability initiatives that may provide opportunities to generate certified energy reduction/offset credits.
France	Register and the Annual Reporting of Emissions and Transfers of Pollutants and Waste	We report operations water, waste and greenhouse gas (GHG) information annually.
France	Agreement to End Routine Flaring by 2030	Projects are being identified on an ongoing basis that will result in increased operational efficiency and a reduction in methane and VOCs once implemented.
Australia	National Greenhouse and Energy Reporting Act (2007)	We report under the robust emissions accounting required by this Act, and have examined three potential carbon taxation pricing scenarios and budgeted the costs associated with compliance. No carbon tax applies to Australian production at this time.
United States	Environmental Protection Act (EPA)	Vermilion's United States operations comply with the EPA requirements associated with stationary engines and holds permits to operate which includes emissions testing, inspections and triennial reporting requirements across our operation.

Water Stewardship

Environmental stewardship of the planet's water resources includes two key focus areas for Vermilion: protection of water bodies, including oceans, lakes and rivers; and increasing our water efficiency. We support this using key performance indicators on water use in the Performance Metrics section of this report and our participation in the CDP Water Security assessment.

Our Approach to Water Stewardship

Vermilion recognizes that water is a shared resource. We therefore take seriously our responsibility to protect the water bodies close to our operations, whether they are on the Bordeaux coastline or Parentis Lake in France, or off Australia's northwest shelf. Although freshwater use represents a relatively small percentage of our annual water withdrawal, water stewardship is a core element of our sustainability program. We take a location-specific approach, complying with or exceeding water and operating regulations in all of our business units. This includes assessing areas of potential water stress, identifying water-related risks and potential consequences, and protecting aquatic biodiversity. We also monitor water as a risk factor, understanding that a decreased water supply due to climate change, for example, would impact our operations. As a result, we emphasize:

- The efficient use of all water,
- The prioritization of non-potable water over potable water, and
- The consideration of our communities and their concerns.

Identifying and Managing Risk

Vermilion uses our Enterprise Risk Management (ERM) System, with its Corporate Risk Register & Risk Matrix, to identify, assess & monitor new & emerging climate-related risks on an ongoing basis, updating the Register as needed but annually at minimum. We also use tools such as WRI Aqueduct and WWF Water Risk Filters to identify water stress in areas as it relates to our operations and value chain partners and ensure that the information is fed into operational development strategies to protect water bodies and increase water efficiency. We use regional government databases whenever available to us.

Based on our ERM system, our long-range planning and business need, we assess water-related risks that include:

- Water availability
- Water reporting & protection regulation changes by governments & regulators
- Water protection measures
- Reputational issues related to water protection and use

The results of our assessment annually feed into our risk / opportunity management process to ensure we have a sound data foundation to support responsible decisions. Detailed analysis of these risks, including potential impact, financial implications, management methods and cost of management, support our business strategy for managing water.

The majority of Vermilion's water withdrawals (85% in 2021) are produced water associated with conventional oil production, primarily in Canada. Through proactive water management, Vermilion is able to secure water for future activities, while minimizing risk and impacts. We prefer to use brackish rather than freshwater in our operations; however, the use of freshwater aquifers is unavoidable in some locations. The availability of freshwater, both now and in the future, is therefore considered important to our operational activities. While alternatives are available now and are expected to continue to be available based on government licensing of water supplies in our regions, there would be an economic and, potentially environmental (transport), impact should we need to seek sources other than our current options.

In addition to working within the existing regulatory frameworks in our operating areas and engaging with local, field-level environmental and fisheries officers with respect to water use and availability, Vermilion's surface land and community relations groups also actively engage with other stakeholders with respect to water-related matters. Landowner consultation is an integral part of all drilling programs and includes dialogue with respect to current water uses and vulnerabilities. Where practical, and particularly in agricultural areas, landowners are often engaged in the provision of freshwater to limit risk and facilitate mutual benefit. Open attendance (e.g. townhall) events are also routinely hosted by Vermilion's operations and community relations teams which provide a forum for stakeholder discussion and communication of water-related concerns. Vermilion's field operations and joint-venture teams are also in regular communication with other industry operators, either through formal industry associations (e.g. CAPP) or ad hoc engagements,

which allows for a direct sharing of water-related activities and concerns, as well as identification of collaborative opportunities.
We require 100% of third-party contractors & sub-contractors to be HSE pre-qualified prior to commencing service work. This includes water-related issues, ranging from compliance with regulations to groundwater protection from spills. This helps ensure they have an HSE program in place that meets or exceeds our requirements. We also observe & interact with our vendors on an ongoing basis to ensure that they are adhering to Vermilion's HSE practices, procedures & rules. This is essential because we operate in regions with strong regulatory approaches to water and : we prioritize the safety & environmental protection of our communities. Our site & work procedures also provide strong oversight of staff and contractor activities. We also conduct a global supply chain risk assessment, analyzing risks based on geography, industry and operations, including climate, environmental and water policies, for suppliers with > $1MM spend.

Operationally and environmentally, we continue to work hard to establish the most efficient and sustainable ways of sourcing and reusing this critical resource. As the single largest component used in hydraulic fracturing operations, water is essential to developing many types of oil and gas reservoirs, particularly in North America. Our semi-conventional development activities are significantly lower frac intensive, however, requiring much lower volumes of water. [303]
Ensuring Containment: Flowback fluids are contained onsite in a closed system, where they are later treated and re-used, or disposed of at authorized facilities at the conclusion of a program.

Assessing Water Stress

Reflecting our activities as an upstream oil and gas producer, water is accessed within all of Vermilion's operational areas for various uses, including drilling, well completion (fracturing in North America only), voidage replacement, enhanced oil recovery and dust control.

As part of our corporate risk evaluation process, which prioritizes water, we recognize that several water stress assessment tools, including the Water Resources Institute (WRI) Aqueduct tool and World Wildlife Fund (WWF) Water Risk Filter, identify some of our operating areas as water stressed. However, based on our field-level observations and monitoring programs, regulatory communications and interactions with other industrial, agricultural and domestic water users, none of our operating areas are at this time deemed to be under water stress in the context of our operations.

Several factors are considered when evaluating water stress within our operating area, both in terms of water availability and the risk our operations may present to sensitive or region-critical water resources. In general, regulatory oversight of water use in all of our operated areas is well developed, with allocation or diversion licensing requirements that consider other water users and the capacity of the resource (surface and groundwater) to support the intended withdrawals. Regulatory authorizations for groundwater withdrawals commonly involve an assessment of aquifer yield as part of the licensing process. Longer-term (i.e. multi-year) diversion licenses typically include a requirement for ongoing aquifer monitoring to ensure that the withdrawal, or collective withdrawals of multiple users, is not adversely impacting the reservoir with time.

Authorizations for surface water withdrawals typically set limits with respect to maximum allowable drawdown and include additional provisions (e.g. inlet screening, access requirements, etc.) to mitigate risk to aquatic organisms and habitat. Limits with respect to the permitted withdrawal volumes and recovery rate are commonly stipulated in the withdrawal authorizations and are enforceable under regulation.

Should our ongoing monitoring and stakeholder engagement activities indicate that an acute or chronic water stress condition is evolving in any of our operating areas, we would further assess the risk presented to, and by, our operation and would implement appropriate mitigative measures. Depending on the area circumstances, this could include sourcing water from outside of a water- stressed area, switching to drilling fluid systems that do not require freshwater, implementation of additional risk management measures to monitor and safeguard vulnerable water resources (surface and groundwater) and, potentially, short or long-term suspension of operations within the water- stressed areas.

Groundwater Protection and Hydraulic Fracturing

We operate in accordance with strict regulations and Industry Recommended Practices (IRPs) that protect groundwater sources through exploration and production phases. For example, Petroleum Services Association of Canada's IRP #14 ensures that non-toxic, water-based drilling fluid is used when penetrating freshwater aquifers down to the government-established base of groundwater protection. Steel casing is then put into place and cemented in permanently to isolate the upper portion of the well while drilling to the final reservoir target.

In Alberta, the Cardium formation is Vermilion's shallowest development play that uses hydraulic fracturing

practices to stimulate the formation. Here, as in our other areas of operation, we employ micro-seismic and computer modeling to ensure we are not contacting or impacting potable water aquifers through our activities. The micro-seismic events measured during hydraulic fracturing operations indicate the height and extent of the fracture system. This data tells us that a typical hydraulic fracture height in the Cardium interval is up to 100 metres. We also know that the Cardium interval is typically found at 1,750 metres below surface and the base of the deepest groundwater is at approximately 600 metres. We therefore maintain an approximate separation distance of 1,100 metres (1,1 km) of rock from the base of groundwater protection to the top of the hydraulic fracture.

Ensuring Containment: Flowback fluids are contained onsite in a closed system, where they are later treated and re-used, or disposed of at authorized facilities at the conclusion of a program. In addition to accessing current technology in our operations, Vermilion has been involved in trialing many new and emerging technologies, and we have invested time and money in an effort to make them viable.

FracFocus disclosure: We publicly disclose all of the additives we use to FracFocus in Canada and the United States for 100% of our operations there, as well as via our regulatory submissions. We continue to work to decrease the required concentration of our additives and we work with our fracturing suppliers to source even better alternatives for future consideration.

Measurement and Evaluation

In all our operating areas, water use is highly regulated; adherence to regulatory requirements and industry best practices related to water use is monitored across all business units.

A full 100% of water volumes withdrawn and discharged are tracked for internal and external accounting, management and/or reporting purposes, using a combination of meters and volumetric calculations. The data is tracked and analzyed to facilitate regulatory reporting (as required) and internal governance and sustainability initiatives.

In total, 99% of Vermilion's water withdrawals are assessed for water quality parameters. Produced water is assessed to determine compatibility and treatment requirements with respect to future re-injection and to assess corrosivity in the context of asset integrity and management programs (e.g. pipelines). Freshwater used for drilling purposes (e.g., hydraulic fracturing or drilling fluid systems) is also assessed to ensure compatibility with the drilling formations and to determine additive requirements.

The water quality assessment may include routine chemistry parameters (pH, conductivity, major cations/anions, etc.), total and/or dissolved metals, hydrogen sulphide, and biological parameters for iron reducing and acid producing bacteria. The majority of the analyses are completed at accredited laboratories. Some parameters (e.g. temperature) may also be monitored in the field.

The majority of Vermilion's water withdrawals (85% in 2021) are produced water associated with conventional oil production. The majority of this volume (82% of our total 2021 discharge) is reinjected into the oil producing formations for voidage replacement or disposed via deep well injection. Lifecycle tracking of produced water is a regulatory and corporate obligation with defined accounting and reporting requirements.

In Vermilion's offshore Australian operations, discharge occurs to seawater in accordance with a government authorization that mandates water quality and quantity, as well as monitoring and reporting requirements. This volume (29% of our total 2021 discharge) is metered as part of the process.

Approximately 1% of Vermilion's total water discharge is to third party wastewater treatment plants, disposal facilities and is either metered or determined by volumetric calculations at the point of transfer.

Protecting Aquatic Biodiversity

The following projects are just a few examples of our water protection work.

Canada

Vermilion is currently engaged in a multi-industry, regulatory-driven initiative to assess water crossings on forested, Crown lands in Alberta. The objective is to identify and repair (or replace) crossings that may represent a potential barrier to fish passage or risk to fish habitat. The majority of crossings in our operating areas predate Vermilion's tenure.

As part of the program, Vermilion has completed an initial, screening level assessment of crossings within our western Alberta region, and developed a staged, risk-based prioritization scheme for further assessment and remedial response. Remedial measures related to several crossings have been completed and the program remains ongoing.

France

In France, we are a member of the Regional Water Basin Committee in the Ambès region located on an estuary that leads to the Atlantic Ocean. This is one of six water basin committees in the country, and brings together private and public stakeholders to address the main priorities of the region's water policy and the protection of its natural aquatic environments. The committee was responsible for the creation of a master plan for water development and management (SDAGE), and is often referred to as the "Water Parliament" of the basin. 102-13

Inland, our operations on and near Parentis Lake are benefiting from our boat, the Pelican, which is used for our lake rounds. It has increased our presence and monitoring, offering a gain in intervention efficiency. From an environmental perspective, the engines meet the latest standards and regulations. This reduces fuel consumption and the boat's wake, thus offering greater respect respect for other lake users such as fishermen and sailors.

In addition, we have organized several Days of Caring through our community investment activities that see our staff caring for the lakes near our operations, clearing non-native invasive species from the shoreline, for example.

Australia

Like all facilities operating in Australian federal waters, Vermilion's Wandoo Facilities are required to have a Safety Case and Environment Plan that are assessed and accepted by the Regulator, NOPSEMA. The Safety Case and Environment Plan are objective- and evidence-based assessments requiring the Regulator to be satisfied that:

- The identified hazards and potential impacts are suitable for the facilities
- Hazards are assessed and managed to as low a level as reasonably practical, and
- A management system is in place to support and monitor implementation of hazard controls on a continual basis.

The Environment Plan requires review and resubmission at least every five years. It addresses the environmental impact from Operations, Well Construction and oil spill response. We undertook a comprehensive environmental risk and impact assessment for all our activities within the Wandoo Field. In addition, we maintain a detailed spill response plan, which is aligned to our spill hazards and operating environment, and review and test its capability requirements annually. NOPSEMA accepted our most recent Operations and Well Construction Environment Plans in 2021.

- Wandoo Facility Environment Plan
- Wandoo Well Construction Environment Plan
- Oil Pollution Emergency Plan

The Regulator conducts regular inspections to confirm compliance.

As part of this work, we undertook offshore marine monitoring in late 2015 within the Wandoo Field. This included the characterization of the epifauna using a remotely operated vehicle (ROV), water sampling and sediment sampling to:

- Obtain data to support Wandoo discharge modelling and impact analysis
- Obtain additional baseline data for future impact assessments

- Establish environmental data to support asset retirement planning

The ROV environmental monitoring survey revealed an ecosystem at Wandoo with a number of transient species, including turtles, sharks and rays, spotted at the base of our platforms. Corals, sponges, clams and molluscs cover the concrete structure.

The program was developed to identify Vermilion's potential impacts on the marine environment in order to achieve further improvements in environmental management if required. As a major stakeholder in the region, it is Vermilion's responsibility to the wider community to assist in maintaining the health of the regional environment.

Assessing the Potential of Rigs to Reefs

In Australia, there are no prescriptive rules on how offshore platforms should be decommissioned. The onus is on the titleholder (Vermilion) to provide an evidence-based risk assessment to demonstrate the proposed method is acceptable. Ideally, the evidence should be medium to long term in nature, independent and scientifically rigorous.

Conventionally, platforms would be removed from their ocean locations once production has ceased. However, given that many were constructed 30-40 years ago, they have become novel ecosystems, acting as artificial reefs, with the potential to support fully functioning ecosystems. Initially, primary producers and epifauna settle on the structure. As plants, corals and primary producers settle and grow, greater numbers of fish are attracted to food, shelter and spawning habitat.

The degree to which decommissioned platforms deliver ecological benefits, however, remains relatively unknown. Research on artificial reefs indicates that biodiversity value does vary between different types of structures, with factors that influence biodiversity similar to natural reefs: structure, depth relief, age and location.

We have therefore supported an independent scientific study conducted by the University of Western Australia (UWA) to test hypotheses on fish productivity around platforms (rigs), as it would provide relevant environmental information for our decommissioning assessments and be rigorously reviewed as part of thesis and scientific publications. We provided the logistics (vessels), monetary support and access to Wandoo waters for two campaigns a year.

Six campaigns have taken place, monitoring the Wandoo platform and its surrounding area on our behalf. Methods include deployment of seabed and mid-water baited remote underwater video systems; these identify fish gatherings in relation to distance from the platform. Existing remotely operated vehicle video data has also been incorporated to further define this novel ecosystem.

The study, published in February 2022 in Ecology and Evolution, found that the abundance and diversity of marine life at the Wandoo oil field were higher than they would have been pre-installation. Additionally, the fish community inhabiting the platform area was distinct from that of a nearby natural reef, with a novel ecosystem emerging at the platform.

The animals ranged from tiny baitfish to large minke whales, and included sharks, manta rays, sea snakes and turtles. Several species were observed exclusively at Wandoo, including rainbow runner, Malabar grouper and tawny nurse sharks.

Find the full study here.

Land Stewardship

We understand our responsibility to be careful stewards of the land. Throughout our operations, we focus on a systematic approach to caring for the land – from environmental assessments during our exploration activities, to wildlife and vegetation protection during production, to planning and implementing reclamation activities when drilling is complete.

Our business units take a proactive approach to understanding the assets we own and/or operate, to assess both associated risks and potential opportunities. This involves a team approach, in which staff from Operations, Asset Integrity, Facilities, Engineering and HSE come together to identify priority sites for review. This may result in improvements to our internal processes or technologies, and to external elements such as updating community signage. These reviews are benefitting from the ever-increasing power of mapping and imaging technology, and from traditional observation techniques such as aircraft surveillance of pipeline routes, along with the personal observations from our staff as they visit these sites.
The following examples represent just a few of the related activities that we undertake.

Reducing Impacts on Communities

We carefully consider issues such as traffic, noise, dust, light, and flora/fauna impacts in our development and operations activities. We work with local residents and independent environmental groups to help reduce our impact. This includes early engagement with local communities through town hall sessions and other communications avenues to discuss our full development plans, and listen to any concerns, questions or feedback that is provided to help shape our plans. For more detail on our stakeholder engagement, see our Report section.

Reducing Surface Footprint

Wherever possible, we reduce our footprint on the land by re-using existing well sites, flow lines and surface facilities to support development. This reduces the aerial impact of our operations and removes the need for the construction of new well sites or pipelines.

In Canada and the United States, we often employ the use of horizontal wells. Where sub-surface geometries are conducive, we program these wells from a single surface location or pad, with up to eight wells being drilled from a single location. Pad drilling reduces the aerial extent of the well site, surface facilities, pipelines and roads: a single vertical well may have a surface impact of approximately 1.7 hectares, while an eight-well pad surface impact is only about 0.5 hectares per well. We also use this horizontal approach in France, in the Neocomian, Champotran and Vulaines fields.

This reduction in surface footprint is amplified by the longer horizontal lengths of wells. In the past, one pad site would have developed about 20 sub-surface hectares (1,400 metres in horizontal length); today, we can develop 1,000 hectares from a single pad site (up to 3,000 metres of horizontal length).

Our Pembina stacked play in Canada has the added environmental benefit of being able to share surface infrastructure, such as roads, pipelines and processing facilities between several different geological plays. This higher well density reduces driving distances, and therefore emissions associated with development, monitoring and maintenance of wells. It also optimizes equipment and energy used during development and maintenance of productive reservoirs.

In The Netherlands we also re-use existing well sites and well bores, which reduces the need for constructing new sites or pipelines. In addition, all our lease sites are sealed with asphalt to isolate them from the groundwater table. We collect rainwater that falls on our lease sites in a series of berms, gutters and storage systems so we can confirm that it is safe to release back to the environment.

In Australia, our leading edge use of horizontal drilling and the re-use of existing well sites also reduces disturbance of the sea floor and impact on marine life.

Supporting Biodiversity

Wherever possible, we support local biodiversity efforts, from analyzing the marine environment off Wandoo to protecting ungulates such as deer and elk during critical winter months in Alberta. [304-1]

In Ireland, we released our 2021-2026 Corrib Biodiversity Action Plan (BAP) in 2021, following the successful implementation of the earlier 5-year plan from 2014 to 2019 (extended through 2020 due to COVID-19). This work included

ecological monitoring, wetland construction, habitat enhancement, species planting, and collaboration with ecological organizations.

As reported in the first BAP, in 2011 Corrib was chosen, amongst others, as a pilot case for the testing of the No Net Loss (NNL) and Net Positive Impact (NPI) principles for the Shell Group. The study was conducted by the Biodiversity Consultancy, which took all project elements into consideration and found that "without any existing NNL policy, best practice at Corrib has resulted in a project design which is predicted to be Net Neutral or Net Positive for biodiversity by 2020". This has been borne out by the positive effects from habitat enhancement and diversification measures that are already becoming evident, with, for example, wetland creation attracting a range of invertebrate species and leading to an increase in recorded bat species. Similarly, the extensive planting of native species of deciduous trees and shrubs planting is beginning to show positive effects in terms of observed invertebrate diversity.

In France, thanks to a request from a local beekeeper, honey is now harvested from our Saint-Méry battery site. Our site is a strategic location for beehives due to the presence of many fruit trees and acacias that are favourable to the proper development of the hives. The eight hives were placed in a small grove mainly composed of acacias, to position the bees as close as possible to flowers around which they can forage, thus optimizing the quantity and quality of the honey produced. The bee chosen is part of the "Buckfast" species, which is particularly hardy and renowned to be minimally aggressive. [304-2]

Also in France, Vermilion was honored to sign the Natura 2000 Charter in 2019 for the "Zones humides d'arrieres dunes des Pays de Born et de Buch" site in Gastes (Landes). This site includes a chain of large lakes and their main tributaries in Northern Landes and Southern Gironde. As part of our preparation for committing to Natura 2000, Vermilion replaced phytosanitary products with mechanical brushing and mowing to maintain our lakeside platforms in the region.

In Netherlands, we actively use ecological monitoring on our drill sites, including motion cameras and on-site personal inspections. This has confirmed that in our three recent drills, wildlife activities such as breeding were not disturbed for a variety of species, including badgers, bats and various species of birds. This monitoring allowed us to take proactive steps to ensure the protection of the habitat, including rescheduling work and mitigating light "scatter." Images from wildlife cameras at one of our locations can be found here; these included known species (roe deer, hare) but also visitors less common in winter (foxes, stone martens, otter). These observations have been placed in the National Database of Flora and Fauna.

In Australia, Vermilion led the effort to develop the regional oiled wildlife response capability necessary to effectively manage the impact of a large oil spill on wildlife. We funded the necessary equipment (a rapid response unit that would receive, assess and treat oiled wildlife) and training, created a register of wildlife responders, and developed "at call" capacity for support specialists. To enable all-industry access, we subsequently donated this equipment to the Australian Marine Oil Spill Centre, which is funded by the Australia Upstream and Downstream Industry group, which includes Vermilion. This initial investment and follow-up support from Vermilion has enhanced oiled wildlife response within Western Australia. While we hope there is never a reason to use this equipment, we are proud to have meaningfully increased the spill response capabilities of industry in our operating area. Please also see our Rigs to Reef project. [203-2 304-2]

Liquid Releases (Spills)

As part of Vermilion's Process Safety Management System, we actively strive to reduce environmental releases, or spills. We report on all spills (all liquid types including fresh water, produced water, emulsion, hydrocarbons) by both number of incidents and volume through our Performance Metrics. Our spills are generally contained within the infrastructure designed to prevent any releases or spills from reaching the environment. Our goal is to recover as close to 100% of the released volumes as possible within the shortest time frame as possible.

In 2017, Vermilion achieved the lowest spill volume since we began recording in 2004. In 2020, as a result of the higher spill profile of the assets acquired from Spartan in southeast Saskatchewan, our spill metrics in the Canada Business Unit increased significantly. In 2021, we therefore developed a reduction management plan that included a program of

assessment, prioritization and mitigation of our pipeline network, accelerating the installation of leak detection, and decommissioning pipelines, with an internal spill reduction target.

Asset Retirement Obligations

We are committed to ensuring the long-term environmental stewardship of the land on which we operate. This includes complying with regulatory requirements associated with the temporary or permanent closure of those operations – known in the oil and gas industry as the Asset Retirement Obligation (ARO), and also by the terms abandonment (when a well is permanently sealed and taken out of service) and reclamation (replacing the soil and vegetation).

Our timing for the permanent retirement of an asset is associated with the reserves that it still contains, our projections for the production of those reserves, and regulatory requirements. Our work includes assessing the condition of each asset, the work that needs to be done to properly shut down the asset (for example, plugging the well with concrete to provide a shield against further hydrocarbon migration to the surface), land reclamation work that would be needed around the asset, and the ability to leverage other ARO work in the area, as it can often be more economical to perform this work on several closely located assets at the same time.
In general, the site is assessed in comparison to the surrounding land to determine if it is currently and or projected to be of equivalent land capabilities. This includes a detailed review of site landscape (e.g. draining, erosion, stability, contour), vegetation (e.g. species, plant measurements, seed development, health), and soils (e.g. evidence of disturbance, topsoil and subsoil depths and textures, colour, consistency).

In 2021, we invested more than $30MM in abandonment and reclamation activities. This included our participation in the federally funded accelerated site closure programs in Alberta and Saskatchewan, through which we abandoned 106 wells.

Our Communities

Communities Dashboard

We focus our investments of time and resources on building shared value with our communities.

SDG	Target	Vermilion's Contribution
	1.2 Reduce at least by half in the proportion of people living in poverty.	**Homelessness and Poverty** 2021: Vermilion has been supporting the Linking Employment Abilities and Development (LEAD) program since 2019. Delivered at the Inglewood Opportunity Hub a place that provides barrier-free, easy to access services to over 4000 youth annually, this specialized program provides vulnerable youth with the opportunity to get and maintain a job, while receiving individualized mental health support.
	2.1 End hunger and ensure access by all people to safe, nutritious and sufficient food.	**Homelessness and Poverty** Our funding focus on homelessness and poverty encompasses several programs that support ending hunger, including our Days of Caring: Canada 2021: Through our Healthy Start Program, we are ensuring children and youth at 9 schools in our operating areas have access to healthy, nutritious food, helping fuel their bodies and their minds. Ireland 2021: Our funding supported much needed repair work at the Comharchumann Forbatha Cill Seadhna Teo centre that provides Meals on Wheels to seniors in the community.
	3.6 Halve global deaths and injuries from road traffic accidents.	**Health & Safety Promotion** We established our Global Emergency Responder Program in 2017 to support critical equipment and training needs for emergency medevac and similar services in all of our business units. In the Netherlands, for example, we are proud to support Nederlandse Hartstiching and their emergency responder AED project helping ensure people have access to emergency medical services.
	15.5 Action to reduce degradation of natural habitat, halt the loss of biodiversity and protect and prevent the extinction of threatened species.	**Environmental Stewardship** We established our Global Environmental Stewardship Program in 2018 to support community-based conservation initiatives. Through this program, our donations help protect the ecosystems and biodiversity that are important to the communities around our operational areas. In France, we support the Moussailons de l'Aiguillon, which provides youth with education around sustainability management of waterways and fisheries.
	17.17 Encourage and promote effective public, public-private and civil society partnerships.	**Celebrating our Cultures** We believe in partnering with our communities to better understand their needs and how we can best support them, and to amplify the value of organizations within them. We have key community and civil society partnerships in each of our business units.

Commitments and Progress

2020 Target	2021 Target	2022/2023 Target
Working to expand "investing in our communities" to showcase the wider positive economic impact that our operations have	Working to expand "investing in our communities" to showcase the wider positive economic impact that our operations have	Develop a social performance policy and strategy
Extended to 2023 due to COVID-19 impacts	*Extended to 2023 due to COVID-19 impacts*	*In progress*

Give Back

- Direct cash contribution: to non-profit and charitable organizations
- Additional direct support: in-kind support, such as materials and staff volunteering time during working hours
- Local contributions: event sponsorships, internships and scholarships
- External resources leveraged: staff donations and partner contributions

Give Time

- 113 grants
- 20,993 staff hours volunteered during non-working hours
- $ 97,572 in grants

Give Together

- 19 Days of Caring
- 640 staff hours during working hours supporting 18 organizations
- Value of $14,510 in cost savings to our partner organizations

TOTAL VALUE OF COMMUNITY INVESTMENT IN 2021
$11,944,464

What our staff tell us about the program:

In our 2019 Great Place to Work annual survey, 86% of staff globally agreed with the statement "I feel good about the ways we contribute to the community." In addition to the ratings statements, the confidential survey also asks what makes Vermilion a great place to work. Here are a few of the comments related directly to our community support:

I am so proud to be a part of the Vermilion family, in my town we are very active in giving back in fact we are known for it. Vermilion has an incredible reputation here. Donating to the food bank, helping less fortunate with xmas trees and gifts at Christmas, Santa's Anonymous etc. Vermilion is rare in the fact that when times are tough and we are facing a downturn we do not pull out of helping our community when we need it most.
Community investment activities like the days of caring and volunteer grants - they mean something to our neighbours .

The privilege of working for an organization that genuinely wants to give back to the communities that we pull profits from. Eg hot lunch programs at schools, Paying for free public swimming and skating. These are all great examples of how we give back and what makes me proud to work here.
I love all the Charity work Vermilion does. It makes me feel really good to work for a company that cares so much about its community.

What our communities tell us about the program:

“We are honoured to have the special relationship that we do with you, Vermilion Energy, and your employees – many of whom we have welcomed to our sites on your Days of Caring. Your steadfast commitment to the communities where you work and live is inspiring and making children’s mental health a priority speaks to your understanding that it affects every one of us. Thank YOU for helping us Never Give Up on anyone who struggles with mental health.”

Bjorn Johansson, CEO, Wood's Homes

"With a decade of hands-on volunteering work, there are countless examples of Vermilion's contributions to St Bart's. From paving courtyards, gardening, AFL games, building a chicken coop, retreat camps, painting and cleaning, each and every contribution over the past 10 years is very much appreciated and we look forward to the next 10. Our vision is to have a world where everyone has a home, and with Vermilion's ongoing support we are certainly heading in the right direction. Not only does your volunteering save us money and time, it also makes our consumers feel like they matter and we can't thank you enough."

Samantha Drury, Chief Executive Officer, St. Bart’s

Our Approach to Human Rights

Protecting All in Our Communities

As a responsible energy producer, Vermilion has always focused on three priorities: the health and safety of the public and those who work with us; the protection of our natural surroundings; and profitability – in that order. Nothing is more important to us than human safety. This is directly linked to our support, within our operations and in our supply chain, for the human rights represented in the United Nations Declaration of Human Rights.

This commitment is formalized in our Code of Business Conduct and Ethics:

HUMAN RIGHTS, WORKPLACE CONDUCT AND SAFETY

Vermilion Energy is committed to respecting human rights in its business and operations as represented by the United Nations Universal Declaration of Human Rights and the Conventions of the International Labour Organization. All directors, officers, employees, contractors and suppliers must comply with all applicable human rights laws and regulations, and the Corporation's policies and standards, whichever are higher, with respect to human rights. To be clear, Vermilion will not tolerate human rights abuses within its own operations or in its supply chain. This extends to human rights as informed by the UN Guiding Principles on Business and Human Rights, including addressing risks of modern slavery, forced labour and child labour, while respecting rights related to freedom of association and collective bargaining.

a) Discrimination or harassment against any individual with respect to race, religion, age, gender (including pregnancy and childbirth), marital status, family status, sexual orientation, national or ethnic origin will not be tolerated. Furthermore, discrimination against any activity specifically protected under the Code of Conduct, such as expressing good faith opposition to prohibited discrimination or harassment, or participating in making a good faith complaint of discrimination or harassment will not be tolerated.

b) Employees are responsible for taking all reasonable and necessary precautions to ensure their own safety as well as that of their colleagues. Directors, officers and employees must comply with all applicable safety laws and policies, procedures

We are committed to working with our stakeholders, including our staff, suppliers, governments and communities to increase awareness of, prevent, identify and address human rights violations. In doing so, we are contributing directly to UN Sustainable Development Goal 8.7, which calls for "immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking."

Our Management Approach

We are taking a phased approach, with risk assessment and identification as the first two actions.

We have conducted a global human rights risk assessment for our business, analyzing risks based on geography, industry and our own business, including a mapping of our supply chain, to understand where and how modern slavery (including forced labour, child labour, human trafficking and discrimination) might occur within Vermilion and within our supply chain. Areas of risk based on the Global Slavery Index and the United Nations Global Compact include agriculture, construction, domestic work, hospitality and food services, and bulk oil carriers.

We address internal risks via clear policies and processes, including for recruitment (we highlight on our external website that we never ask job applicants to pay fees, for example) and Fair Culture (which establishes fair and consistent procedures to review, investigate, and resolve events and complaints, including related to discrimination and harassment).

Within our supply chain, we review all suppliers with which we spend more than $1 million annually, assessing their public commitments to human rights, and the level of detail and external assurance within those commitments, including those related to Indigenous peoples, children, migrant labour, and contracted labour.

In 2022, we also initiated a pilot project to evaluate human rights risks via sustainability data provided by suppliers to our Canada and US business units via a third-party questionnaire. This included policies and management related to human rights, social certifications, forced labour, modern slavery, hiring practices, migrant labour, Indigenous relations, child labour, security services training, labour rights, ethics and inclusion and diversity. Related data can be found in our Environment Investment Performance Metrics.

Our Approach to Communities

We steward our operations and relationships to demonstrate our commitment to being a responsible producer and a valued and trusted neighbour and business partner. This includes:

- Transparency with respect to safe and environmentally responsible operations, including our potential impacts on local communities
- Maintaining strong, genuine relationships with our communities, with engagement based on respect, listening and openness, and
- Creating shared value focused on local economic and social development

Why This Matters – Contributing to Local Prosperity

Our communities comprise a wide diversity of people and organizations, but they have one key thing in common: they care deeply about the safety, environmental stewardship and corporate citizenship that we bring to our local operations. At the same time, our people care deeply about their communities – whether we work or live there, these are the places we call home. We identify areas where the needs of our communities, our business and our people intersect, providing opportunities to offer support where it builds well-being for all.

Our Management

At Vermilion, our impact is greater than the products and services we provide. We actively support the communities we serve through strategic investment in people and resources.

Our community contributions go beyond charitable and philanthropic efforts. We believe that local employment and local procurement in the countries and regions where we operate play an important role in building good relationships and contributing to the local economy and community. We seek to procure goods and services from local suppliers who meet the health, safety and environmental standards under which we operate. We also require that our suppliers comply with our core values with respect to human rights, labour standards, and business integrity.

Our Ways of Caring Program

Through our Vermilion Ways of Caring program, we give back, we give time and we give together. This strategic approach to community investment exemplifies "The Vermilion Way" of getting things done – demonstrating leadership, embracing responsibility and achieving excellence. The program provides a global framework, with clearly identified priorities and activities, that can be customized for local needs within our business units.

Give Back

This represents our strategic funding initiatives, focused in four key investment areas:

- Homelessness & Poverty. We work with social investment agencies that support the most vulnerable in our community through measurable, impactful programs to break the cycle of poverty and homelessness, because we believe healthy, vibrant communities include all community members in their success.
- Health and Safety Promotion. We invest in results-oriented programs that enhance the wellbeing and safety of individuals and communities, sharing our best-in-class approach to a health and safety culture that is fully integrated into every facet of Vermilion's operations.
- Environmental Stewardship. We partner with organizations that use science-based best practices to enhance environmental conservation and education, contributing to healthy, resilient, sustainable communities today and in the future.
- Celebrating Vermilion's Cultures. We support the local cultures of our diverse locations to ensure that their traditions and contributions are recognized and preserved.

Give Time

We support the wide variety of not-for-profit and charitable organizations that our staff and their immediate families volunteer at outside of working hours, using a tiered volunteer grant approach: the greater the volunteer hours, the greater the donation to the organization. This allows us to directly support the causes and community organizations that mean the most to our people.

Give Together

We encourage our people to spend up to two days per year volunteering on company time as part of a team or larger Day of Caring project. These hands-on opportunities help us to

put caring into action, building collaborative, trusted and genuine relationships between our people, our company and our communities.

Municipal Linkage Program

Vermilion's Netherlands Business Unit launched its Municipality Linkage Program (MLP) in 2016, to help us visibly support the communities where we are active. We have identified 12 municipalities that are priorities based on our operational activities. Within these locations, we connect with key stakeholders such as residents, community organizations and municipalities to help identify strategic community investment that we could consider funding: a community need and a local solution that helps to address it. Projects supported by the MLP touch all pillars of Vermilion's community investment priorities, with the majority of funds spent in the area of environmental stewardship, specifically supporting the energy transition. In the five years we have been supporting the MLP we have seen tremendous growth in community and employee engagement.

The success of the MLP was seen in 2021: supporting 22 projects, organizations in 7 municipalities, and providing €116,000 in support. Since its inception in 2016, this program has invested more than €976,668 in municipalities in and around our operations.

Measurement

Funding Metrics

Vermilion has developed a funding model that links our community investment budget to key business performance metrics over a rolling average of the past three years. This is applied globally to the entire budget, and then by business unit to establish local budgets. This helps to provide stable funding for community investment over time by levelling out one-time changes in annual revenue and production, and directly linking company activities with investment in our communities.

People Metrics

We connect our community investment work directly with our staff satisfaction metrics through our confidential, third-party-conducted Great Place to Work® people survey. This is carried out through quantitative responses to the specific question "I feel good about the ways we contribute to the community" and through qualitative comments received in the open-ended survey questions.

In addition, we use anonymous staff surveys to develop community investment activities (such as proposing and choosing organizations for our Days of Caring and activities for our Ways of Caring fundraising campaign) and to assess their success and potential for continuous improvement.

Performance Metrics

We use various metrics on the spectrum between Inputs, Outputs and Outcomes to measure the results of our strategic community investment funding, with an increasing emphasis on working with our community partners to establish the means and support to measure outcomes:

- Inputs: the value of our funding, staff volunteering (inside and outside working hours) and external resources leveraged
- Outputs: the scope of support provided (such as numbers of meals or workshops) and the number of people impacted by programs that we support
- Outcomes: the measurable impacts of the support we provide, including Social Return on Investment

As an example of outcomes measurement, our flagship partnership with the YW of Calgary (the Skills Training Centre project that provided 20-week construction training courses for women facing barriers to achieving viable employment) included a study into its Social Return on Investment. Our external consultant found that an SROI ratio of $4.65 of value created per $1 invested was a conservative estimate of the ongoing future value of the Centre's services.

In addition to the Great Place to Work® survey metrics, we report the value of our community investments following the London Benchmarking Group's standard "circles" of investment to reflect our total contribution:

- Direct cash contribution: our donations to non-profit and charitable organizations
- Additional direct support: adds in-kind support, such as donations of materials for Days of Caring and staff volunteering during working hours
- External resources leveraged: adds value of staff and our partner contributions

Evaluation and Adjustment

We use these metrics with additional information on our community investment program and activities as part of Vermilion's senior management team reviews and subsequent reports to the Board of Directors.

We adjust our funding and activities as needed, but on an annual basis at minimum. We identify and contribute to best practices as they develop, increase communication to staff to promote specific initiatives, and respond to changing needs within specific business units.

Volunteering Around the World

The COVID-19 pandemic continued to curtail our in-person volunteering in 2021. However, we found some innovative ways to support our communities while still protecting the health and safety of our staff and community partners.

Saskatchewan, Canada

Staff in Saskatchewan participated in community investment activities across many of the communities where we have operations. These include lending a hand at the Gateway City Golf Course cleanup, raking leaves and hammering nets into the ground for the Weyburn Soccer Fields, assembling a new play structure for the Mainprize Regional Park, helping with spring clean-up of the Oxbow campground areas, and assisting seniors with home and garden upkeep in Estevan. These days are a great way for us to show our commitment to our communities and get to know our neighbours.

Mayo County, Ireland

Staff participated in a beach clean up with community partner, Clean Coasts, that resulted in several bags of discarded plastics being removed from the public beach.

Calgary, Canada

Activities with safe social distancing included our continued support of Wood's Homes, for their fall landscape clean-up at the Vermilion Energy Family Centre.

Hanover, Germany

On one of the hottest days in 2021 in Hanover, a group of committed volunteers gardened and laid walkway slabs so that the children for the Lebenshilfe School in wheelchairs would have a safe way to get to the high veggie beds. The high garden beds were then constructed and filled with soil. These were later planted by the schoolchildren.

Hungary

In May 2021, several Vermilion Hungary employees went to donate blood after a year-long pause. COVID-19 measures had prohibited blood donations in public places until this point, and so, many employees were excited for the opportunity to continue saving lives.

Key Community Investment Partnerships

Vermilion focuses our strategic approach on long- term investments that make a measurable and significant difference for our communities. Wherever possible, our partnerships go beyond funding to include staff time and other support for the organizations. This is reflected in the partnership matrix that we have developed that provides a consistent framework to assess potential projects. The matrix also includes alignment with one or more of our key pillars, sound organizational governance, long-term impact, benefits to stakeholders, potential for multi-sector collaboration, volunteering opportunities, capacity building potential, and measurability.

Here are some of our key flagship partnerships:

Global Emergency Responder Program

Nothing is more important to Vermilion than the safety of our staff, our contractors and our communities. The Global Emergency Responder Program supports this commitment by investing in emergency response organizations that serve the communities where we work and live. Our donations will help fund equipment and other high-priority needs for these non-profit and charitable organizations, which are dedicated to keeping our communities and our people safe.

Global Environmental Stewardship Program

As an energy company, we have a responsibility to the wider community to support the health of our environments – it's why we selected Environmental Stewardship as one of four funding areas within Ways of Caring, our community investment program. It's also why we chose that pillar to establish Vermilion's second global community investment program. Through this program, our donations will help protect the ecosystems and biodiversity that are important to the communities around our operational areas.

Canada

Vermilion Energy Family Centre at Wood's Homes in Calgary, Canada

In June 2015, Wood's Homes opened the doors of the Vermilion Energy Family Centre and their Whole Family Treatment Program, following a $1 million investment in 2013. This intensive, short-term program serves families from across Canada who are struggling with complex issues including mental illness, crisis management, parenting strategies and child development. It offers a home-away-from-home where the entire family can receive mental health treatment at the same time and under the same roof.

WOOD'S HOMES
WORKING FOR CHILDREN'S MENTAL HEALTH
SINCE 1914

Here, Wood's Homes focuses on the five primary areas of family interaction: developing child well-being, increasing family safety, enhancing home environment, strengthening parenting capabilities and improving family interactions. Each family member is professionally assessed and receives individualized treatment during their stay of either five days or over a weekend. Wood's Homes also provides support post-treatment to help maintain goals and to help families incorporate newfound strategies into their everyday life.

Pre-COVID, in 2019, 29 families - over 109 family members - received the help they needed through the program offered at the Vermilion Energy Family Centre. Of family members surveyed after treatment, 94% said that they experienced a decrease in the need and use of additional mental health services and engagement as a family with Children's Services, a major goal of the program. Most families shared that they now have a better understanding of child development and well-being and felt that the family relationships had improved, and many families shared that they had a better knowledge of community services and how to access them to better support their family.

We are proud of the groundbreaking role that the Vermilion Energy Family Centre is helping to play in delivering family-centred treatment.

In 2021, we continued to engage through Days of Caring, and our three-year commitment to the LEAD program, an employment training program that provides vulnerable youth with the opportunity to gain valuable skills that will assist them in both their work and home life.

Aura Program & Camp fYrefly, supporting LGBT Youth

Respect is one of our core values. We actively support the right of all those

who work with us to have a workplace that is free of discrimination and harassment, including on the basis of sexual orientation. Extending this spirit of respect to our community investment partnerships is important to us, and we were pleased to make a three-year funding commitment to support the Aura Program and Camp fYrefly in the important work they do in our communities.

Aura is a Trellis (Boys & Girls Club) program that provides support and housing to youth aged 14 to 24 who identify as LGBT+ and are currently experiencing homelessness or are at risk of homelessness. Camp fYrefly is a summer camp and leadership retreat designed to help LGBT+ youth grappling with finding their true identity build confidence and resilience.

Camp fYrefly provided both in-person camps and online experiences in 2021, delivering workshops and activities that balanced different types of programs, from art to health to education, and prioritizing community building and relationships to ensure campers could be supported. Aura's housing support program during COVID-19 also required many adjustments, focused on providing safe environments and a sense of belonging for the young people it serves.

Wilder Institute/Calgary Zoo

The Vermilion Energy Empty Backpack Program aligns with two of our community investment priority areas: homelessness & poverty and environmental stewardship. Through hands-on activities and up close and personal encounters with animals, the Wilder Institute/Calgary Zoo is connecting audiences of all ages with nature and inspiring actions for wildlife conservation.

Vermilion began a partnership with the Wilder Institute/Calgary Zoo for the 2014/2015 school year, providing a donation to support the **Vermilion Energy Empty Backpack Program**. Through this program we are helping to ensure that learning opportunities which are so vital to a well-rounded education and critical to our future are available to all Calgary's school children, regardless of financial or family circumstance.

Starting in the 2019-2020 school year, Vermilion increased our financial commitment, delivering more programs and increasing the number of classes that can be welcomed to the zoo and its conservation-oriented education program. We continued this support through 2020-2021 as the Calgary Zoo adapted to the pandemic by offering virtual programming for schools such as Penguin Virtual Safaris and other enrichment and special program videos.

STARS Air Ambulance

Every day, STARS takes care of some of the sickest and most critically-injured patients in Western Canada. This translates to thousands of people every year who rely on STARS to get them to hospitals safely, where they can access the advanced care they need. STARS is already an operational partner for CBU, as their dispatch centre manages our Emergency Call Centre.

United Way of Calgary and Area

United Way
Calgary and Area
United. Building a great city for everyone.

We believe that for a city to be great, it has to be great for everyone. At the same time, no single organization can tackle systemic issues such as poverty, school completion and isolation in the community alone.

United Way brings together all areas of community –business, government, academia, school boards and others – to address social issues at the root cause and to develop long-term strategies to solve them.

That's why Vermilion has been contributing to United Way since 1996 and organizing an annual United Way workplace campaign since 1998. United Way recognized our efforts with a 2020 Community Impact Workplace Excellence Award.

Since 1996, Vermilion has contributed nearly $4.4 million to support local non-profit organizations and social programs through the United Way.

Our 2021 campaign was a mix of virtual and in-person activities, and raised over $180K, with staff participating through pledging, events and contests. We are proud of this achievement's impact on the community. This donation will provide more than 65 Calgarians access to basic needs, including food and shelter, ensure more than 45 children and youth are empowered and successfully transition to adulthood, or connect more than 130 Calgarians to necessary resources to support their wellbeing.

Charles W. Berard Undergraduate Scholarship

Vermilion set up the Charles W. Berard Undergraduate Scholarship in

Natural Resources and Environmental Law in 2009 to pay tribute to the life, work and memory of Charlie Berard, a dear friend to many at Vermilion, and our corporate secretary from 1997-2009.

Each year, a scholarship of approximately $5,000 is awarded to a continuing undergraduate student entering third year in the Faculty of Law at the University of Calgary with a demonstrated interest in Natural Resources & Environmental Law. A key part of the criteria is a candidate who best demonstrates leadership and support to the community, and alignment to Vermilion's core values of Excellence, Trust, Respect and Responsibility.

Australia

St. Bart's House in Perth

Since 2009, Vermilion has supported St. Bartholomew's House in Perth, an organization that helps people who are homeless or at risk of homelessness achieve positive life outcomes. It offers a variety of crisis and transitional programs to help people build the connections, skills and confidence to live productive, independent lives in the community and break the cycle of homelessness. Through St. Bart's, Vermilion's funding invests in essential facilities and services that will help transform the lives of some of the city's most vulnerable people. Our contributions support the Lime Street social housing facility and a social inclusion officer for older women at the Kensington Street Accommodation Service, who coordinates activities and outings that positively contribute to the health and wellbeing of the residents. Vermilion staff have also organized Days of Caring at St. Bart's since 2012, including a gardening day, social events such as a mini-Olympics, care home renovations, garden landscaping, and two camp events for those living in Community Supported Residential units.

In 2021, we celebrated 12 years of partnership. We are proud to have helped St. Bart's provide a wraparound service for vulnerable populations in Western Australia.

Royal Flying Doctor Service

The Royal Flying Doctor Service of Australia is one of the world's largest aeromedical organizations. With a "waiting room" of 7.69 million square kilometres, this organization made contact with over 283,000 patients last year and flew over 26 million km. RFDS operates throughout Australia, so it's a great match for both our Perth-based staff and our platform staff who come from locations throughout the country. RFDS also backs up our industry medical response organization, and as a remote area provider, supports our staff both at work and at play.

Black Cockatoo Preservation Society

Primarily a volunteer-operated organization, the Karaakin Black Cockatoo Conservation Centre's aim is to conserve threatened and endangered black cockatoos. Vermilion's support will aid in annual cockatoo counts, repairing cages and supporting revegetation projects.

Central & Eastern Europe

Croatian Mine Action Centre & Hungary Ambulance

Vermilion has supported the CMAC, an organization that carries out demining operations in areas where mine danger presents a direct safety problem for the population, and Hungary Ambulance, supporting a fire station near our operations.

Scouts Association of Croatia

Following devastating wildfires in Dalmatia, the Scouts Association has have undertaken the largest volunteer reforestation in Croatia, planting over 20,000 seedlings to date. We're proud to support the return of life back to these areas.

Playgrounds in Vukovar-Srijem County

Following the Ceric and Berak gas discoveries in Croatia in 2019, staff in CEE noticed that two nearby community playground areas could use a helping hand. We offered the communities support to restore them, and are very happy with the brightly coloured, imaginative results for local children!

France

La Protection Civile Essonne et Seine-et-Marne

Our partnership with Civil Protection associations has allowed the purchase of four Automated External Defibrillators in Essone and has supported the purchase of an ambulance in Seine-et-Marne. These associations are an important part of our communities, as they provide volunteer first aid teams for a wide range of community gatherings such as music festivals and sporting events, along with critical emergency operations after natural disasters.

Chantier Ecole

By supporting the reintegration of unemployed individuals back into the labour market, organizations involved in this network provide

valuable labour resources for projects that focus on protecting the environment and restoring local heritage. This flagship partnership will provide support to organizations in many areas where we operate.

Secours Populaire

This non-profit organization's aim is to fight against poverty and exclusion. It provides emergency aid to those who are homeless, including food and clothing, housing and referral to additional support. Vermilion has supported the Parentis location by helping to finance a shower facility for the homeless and storage facilities for donated clothing that the agency sells to help raise funds.

Germany

Refugee Camp Wassmannsdorf

Our funding and volunteer time have supported annual events at this refugee camp in Schönefeld, including the Summer Festival and Christmas party. We received a warm welcome from the residents, including children, and enjoyed partnering with other organizations from around the community.

Fire Brigades

In Germany, similarly we have identified local fire brigades – front line rescue organizations that would support our operations. Our funding has made it possible for them to purchase essential equipment.

Ireland

Skills @ Work Programme

As an active member of the Schools' Business Partnership, Vermilion and other local businesses aim to positively impact educational inclusion in Ireland. Each year Vermilion hosts local second-level students at the Bellanaboy Gas terminal in Mayo, The program provides students with exposure to a "day in the life" of different disciplines working at Vermilion and discussions on a range of career options.

Netherlands

Flagship Partners in The Netherlands

In 2017 we established a flagship partnership between JINC and Vermilion. As a non-profit organization, JINC believes that every child deserves a fair chance in the labour market; it helps young people aged 8 to 16 years through vocational orientation in the workplace and learning (social) skills. Vermilion's funding was used to open the first JINC branch in Leeuwarden, making Vermilion a founding partner there. We are also contributing through the efforts and knowledge of our staff.

Vermilion continues to support our flagship partnership established in 2019 with Stichting Present. Connecting organizations and volunteers with individuals who live in poverty, social isolation or have a disability, Stitchting Present helps communities flourish.

Dutch Heart Foundation

Vermilion began supporting the Dutch Heart Foundation in 2020, in its bid to provide help within six minutes of someone's cardiac arrest. Our support has provided for five Automated External Defibrillation (AED) packages for communities including Sonnega, Wolvega, Burgum, Eernewoude and Koostertille.

Birdwatch Wolvega/ Blesdijke

More than half of the Netherlands consists of agricultural land. Many bird species use these grasslands to breed, feed or rest. The Netherlands hosts a significant portion of the world population of a diverse group of 'meadow birds'. The populations of these birds are now listed as protected species to prevent extinction. Our donation to the Birdwatch of Wolvega/ Blesdijke will support the perseverance of these birds in our local communities via 15 'drainage pumps,' that farmers in the area can borrow to drain specific parts of their land to attract the birds to a safe breeding spot. The placement of the pumps occurred around the breeding season in April 2021, with the Birdwatch monitoring bird activities closely.

United States

Food Bank of the Rockies

Our team in the Denver office volunteers at the Food Bank, which helps families in Colorado and Wyoming thrive by procuring and distributing food and essentials to the hungry through various programs and partner agencies.

Weston County Fire Protection District, Newcastle Fire Department, Weston County Sheriff Search & Rescue

The Weston County Fire Protection District, a local community volunteer fire department, is close to our Wyoming operations, and relies on donors to support firefighter training, trucks and protective equipment. In addition to three fire stations, the District places wildland engines at strategic rural locations to provide quicker responses to wildfires.

Index

International Sustainability Standards Board - Sustainability Accounting Standards Board

Topic	Metric	Code	Aligned	Context	Page / Performance Metrics
Greenhouse Gas Emissions	Scope 1, methane	EM-EP-110a.1	Substantial	Currently based on throughput operational control	PM - Energy & Emissions
	Scope 1 flaring & venting	EM-EP-110a.2	Substantial	Reported as flared, vented and fugitive emissions	PM - Energy & Emissions
	Emissions strategy and targets	EM-EP-110a.3	Full	TCFD report - Strategy; Targets and metrics	20, 33
Air Quality	Air emissions	EM-EP-120a.1	Partial	NOx, VOCs, PM not tracked in all business units	PM - Energy & Emissions
Water Management	Freshwater withdrawn and consumed	EM-EP-140a.1	Full		PM - Water
	Produced water and flowback generated	EM-EP-140a.2	Substantial	Flowback not reported	PM - Water
	Public disclosure - frac fluids	EM-EP-140a.3	Full		PM - Energy & Emissions
	Water quality at frac sites	EM-EP-140a.4	None	Water monitored, but not yet tracked for reporting	
Biodiversity Impacts	Policies and Practices	EM-EP-160a.1	Full		76-85
	Volume and # of spills	EM-EP-160a.2	Substantial	No spills in Arctic; shoreline spills not tracked; volume recovered not reportable	PM - Water
	Reserves near protected sites	EM-EP-160a.3	None	Not yet tracked	
Human Rights	% of reserves in or near areas of conflict	EM-EP-210a.1	Full	Zero - no reserves in or near areas of conflict	
	% of reserves in or near Indigenous land	EM-EP-210a.2	Full	60% of total proved + probable reserves are in Canada, in traditional Indigenous territories	Annual Information Form
	Engagement & due diligence	EM-EP-210a.3	Substantial	Approach to human rights & stakeholder engagement	93, 14
Community Relations	Processes to manage rights & interests	EM-EP-210b.1	Full		14, 89-97
	Non-technical delays	EM-EP-210b.2	Full	No delays outside regulatory processes	
Workforce Health & Safety	TRIF, fatalities, NMFR, Training	EM-EP-320a.1	Substantial	All reported except near miss frequency rate	PM - Safety
	Management systems - safety culture	EM-EP-320a.2	Full		72, 74
Reserves & CAPEX	Reserve sensitivity to carbon pricing	EM-EP-420a.1	Partial	Emissions long-range planning tool incorporates planned production to 2030 including carbon pricing	30
	CO2 emissions in proved reserves	EM-EP-420a.1	None	Not yet tracked	
	Investment in renewable energy	EM-EP-420a.3	Full		PM - Energy & Emissions
	CAPEX strategy discussion	EM-EP-420a.4	Substantial	TCFD Strategy section - Risks & Opportunities	23
Ethics & Transparency	Reserves in TI CPI 20 lowest countries	EM-EP-510a.1	Full	No reserves in countries with 20 lowest rankings	
	Management system	EM-EP-510a.2	Full		50
Legal & Regulatory	Positions on E&S factors	EM-EP-530a.1	Full		42
Critical Incident Risk	Process Safety events	EM-EP-540a.1	Full		PM-Asset Integrity
	Management systems	EM-EP-540a.2	Full		63
Activity Metric	Production of oil and gas	EM-EP-000.A	Full	Annual Reports + Sustainability Report	PM-Energy & Emissions

Performance Metrics

MATERIAL TOPIC	2017	2018	2019	2020	2021	Context	GRI
ECONOMIC IMPACT							
Gross petroleum and natural gas sales: $M	**1,098,838**	**1,678,117**	**1,689,863**	**1,119,545**	**2,079,761**		102-7
Canada	330,903	671,172	828,070	569,191	901,775		102-7
France	268,103	360,602	326,699	182,292	279,263		102-7
Netherlands	108,060	165,916	112,857	65,575	295,723		102-7
Germany	68,696	82,449	57,312	34,210	131,935		102-7
Ireland	153,330	205,150	104,274	58,446	214,425	2019: First full year of Corrib operatorship	102-7
Central & Eastern Europe	0	3,630	797	1,933	1,211		102-7
Australia	154,391	150,733	184,490	141,452	143,014		102-7
United States	15,355	38,465	75,364	66,446	112,415		102-7
Operating costs, excludes transportation, royalties and G&A: $M	**242,267**	**357,014**	**440,078**	**417,251**	**413,013**		102-7
Canada	80,444	177,499	242,790	218,596	215,387		102-7
France	51,002	54,690	61,281	57,128	52,147		102-7
Netherlands	21,212	26,681	32,125	32,410	35,269		102-7
Germany	20,176	23,048	24,970	20,732	27,149		102-7
Ireland	17,596	15,366	12,431	15,232	14,889	2019: First full year of Corrib operatorship	102-7
Central & Eastern Europe	0	110	301	464	441	As per p 79 of 2021 Annual Report: CEE and Corp combined	102-7
Australia	50,139	53,199	49,810	54,581	50,748		102-7
United States	1,698	6,421	16,370	18,108	16,992		102-7
Employee wages and benefits: $M	**137,831**	**174,831**	**201,581**	**207,390**	**187,590**	Permanent staff; does not include contractors	102-7
Canada	70,581	93,750	109,468	117,878	99,741	CBU and Corporate	102-7
France	22,904	23,733	22,103	21,165	20,149		102-7
Netherlands	14,492	15,080	15,049	16,623	15,815		102-7
Germany	5,851	6,846	5,929	5,368	4,824		102-7
Ireland	0	1,809	14,981	15,071	15,405	2019: First full year of Corrib operatorship	102-7
Central & Eastern Europe	991	1,171	1,638	1,116	1,137	CEE	102-7
Australia	17,715	26,016	23,950	20,304	24,036		102-7
United States	5,297	6,426	8,462	9,865	6,484		102-7
Dividends declared: $M	**311,397**	**388,111**	**427,311**	**90,067**	-	Dividends were temporarily suspended in 2020; reinstated in 2022	102-7
Interest payments: $M	**57,313**	**72,759**	**81,377**	**75,077**	**73,075**		102-7
Taxes paid: $M	**32,107**	**43,577**	**52,230**	**14,341**	**45,854**		102-7
Canada	527	513	406	(71)	(1,522)		102-7
France	10,556	15,084	21,431	141	(9,120)		102-7
Netherlands	(3,331)	16,561	(3,961)	(3,774)	46,567		102-7
Germany	0	0	0	0	0		102-7
Ireland	0	0	0	0	0		102-7
Central & Eastern Europe	0	0	0	0	0		102-7
Australia – includes PRRT and corporate taxes	24,355	11,419	34,354	18,045	9,929		102-7
United States	0	0	0	0	0		102-7
Royalties paid: $M	**74,476**	**152,167**	**163,666**	**106,554**	**186,122**		EC1SS
Canada	33,258	84,696	94,079	54,961	113,651		EC1SS
France	28,565	46,781	43,895	32,069	37,666		EC1SS
Netherlands	1,722	3,181	1,469	444	873		EC1SS

MATERIAL TOPIC	2017	2018	2019	2020	2021	Context	GRI
Germany	6,655	6,626	5,264	990	2,847		EC1SS
Ireland	0	0	0	0	0		EC1SS
Central & Eastern Europe	0	813	253	644	338	As per p 79 of 2021 Annual Report: CEE and Corp combined	EC1SS
Australia	0	0	0	0	0	See PRRT and taxes above	EC1SS
United States	4,276	10,070	18,706	17,446	30,747		EC1SS
Investment in our Communities (also see communities metrics): $M	**1,470**	**1,587**	**1,907**	**1,447**	**1,162**		102-7
Canada	852	908	1,249	838	608	Includes corporate program costs	102-7
France	187	155	174	160	116		102-7
Netherlands	315	277	153	111	238		102-7
Germany	2	68	131	88	53		102-7
Ireland	0	70	104	118	124	2019: First full year of Corrib operatorship	102-7
Central & Eastern Europe	3	4	3	61	5		102-7
Australia	101	88	75	68	-		102-7
United States	10	17	18	2	18		102-7
Direct economic value distributed: $M	**856,861**	**1,190,046**	**1,368,150**	**912,127**	**906,816**	Total: operating costs through community investment above	102-7
Economic value distributed in Canada	185,662	357,366	447,992	392,202	427,865		102-7
Economic value distributed in France	113,214	140,443	148,884	110,663	100,958		102-7
Economic value distributed in Netherlands	34,410	61,780	44,835	45,814	98,762		102-7
Economic value distributed in Germany	32,684	36,588	36,294	27,178	34,873		102-7
Economic value distributed in Ireland	17,596	17,245	27,516	30,421	30,418	2019: First full year of Corrib operatorship	102-7
Economic value distributed in CEE	994	2,098	2,195	2,285	1,921		102-7
Economic value distributed in Australia	92,310	90,722	108,189	92,998	84,713		102-7
Economic value distributed in US	6,975	22,934	43,556	45,421	54,241		102-7
Economic value distributed via dividends & Interest	368,710	460,870	508,688	165,144	73,075	Dividends were temporarily suspended in 2020; reinstated in 2022	102-7
ASSETS, DEBT & EQUITY							
Net land position: acres, developed and undeveloped	6,621,826	7,066,360	7,345,355	6,986,689	5,360,615		102-7
Common shares outstanding (basic): MM	122	153	156	159	162		102-7
Market capitalization: $ billion	**5.58**	**4.39**	**3.32**	**0.90**	**4.70**	As of June 1 2022	102-7
Fund flows from operations: $M	602,565	838,652	908,055	502,065	919,862		102-7
Fund flows from operations per basic share	5.00	5.96	5.87	3.18	5.71		102-7
Fund flows from operations per diluted share	4.92	5.89	5.82	3.18	5.58		102-7
Net earnings: $M	62,258	271,650	32,799	(1,517,427)	1,148,696		102-7
Net earnings per basic share	0.52	1.93	0.21	(9.61)	7.13		102-7
Capital expenditures: $M	**320,449**	**518,214**	**523,164**	**367,202**	**374,796**	E&D Capex	102-7
Acquisitions: $M	27,637	1,759,425	38,472	25,810	130,965		102-7
Cash dividends per share	2.58	2.72	2.76	0.58	-	Dividends were temporarily suspended in 2020; reinstated in 2022	102-7
Dividends as % of fund flows from operations, gross	52%	46%	47%	18%	0%		102-7
Dividends as % of fund flows from operations, net	33%	40%	43%	16%	0%		102-7
Long term debt: $M	1,270,330	1,796,207	1,924,665	1,933,848	1,651,569		102-7
Total shareholders' equity: $M	1,542,886	2,817,251	2,453,305	925,402	2,066,145		102-7
Total assets: $M	3,974,965	6,270,671	5,866,120	4,109,139	5,905,323		102-7
Total annual shareholder return	**-14.6%**	**-32.6%**	**-17.6%**	**-70.5%**	**179.9%**		102-7
ARO (asset retirement obligations) settled: $M	9,334	15,765	19,442	14,278	28,525		102-7

MATERIAL TOPIC	2017	2018	2019	2020	2021	Context	GRI
OPERATIONS AND RESERVES							
Number of operations (operated business units)	**7**	**8**	**8**	**8**	**8**		102-7
Production – total: boe/d based on financial control	**68,021**	**87,270**	**100,357**	**95,190**	**85,408**		G4-9
Production – crude oil: bbls/d	27,721	39,182	47,902	43,421	38,143		G4-9
Production - NGLs: bbls/d	4,194	6,366	7,984	8,937	8,325		G4-9
Production – natural gas: mmcf/d	217	250	267	257	234		G4-9
Total proved + probable reserves, gross: mboe	**298,490**	**488,145**	**501,233**	**466,603**	**481,007**		OG1

MATERIAL TOPIC	2017	2018	2019	2020	2021	Context	GRI
COMMUNITY INVESTMENT							
Community investment total: a+b below ($ thousands)	1,470	1,587	1,837	1,447	1,162	100% non-profit/charitable organizations	102-7
Canada	852	908	1,179	838	608	Includes program costs	102-7
France	187	155	174	160	116		102-7
Netherlands	315	277	153	111	238		102-7
Germany	2	68	131	88	53		102-7
Ireland		70	104	118	124		102-7
Central & Eastern Europe	3	4	3	61	5	Two one-time significant investments in 2020	102-7
Australia	101	88	75	68	-		102-7
United States	10	17	18	2	18		102-7
COMMUNITY IMPACT							
Operations with local community engagment programs %	100	100	100	100	100	All business units	413-1
Total community impact for non-profits or charities: a+b+c below $	1,808,291	2,159,245	2,297,436	1,750,279	12,015,258	400+ community groups supported; Note that we understated previous years by not including full contributions by our partners to the Municipal Linkage Program	413-1
a. Direct company-driven donations $	1,056,694	1,097,602	1,096,683	890,311	742,461	Based on LBG circles of corporate giving	413-1
b. Additional direct support (e.g. in kind, employee hours, volunteer grants) $	413,568	489,698	740,385	557,029	420,057	Includes program costs	413-1
c. External resources leveraged (e.g. staff, partner, government matching) $	338,029	571,945	460,368	302,939	10,852,740	2021+: Includes partner contributions to Municipal Linkage Program (Netherlands), joint venture partner contributions (Ireland) and staff matching (United Way)	413-1
Other direct investment in our communities (e.g. commerical initiatives beyond non-profit/charity) $	-	-	59,330	20,706	48,654	Event sponsorships, research support	413-1
Employee Volunteering Outside Working Hours: Volunteer Grant Program							
Vermilion donations $	77,572	76,137	139,872	97,572	31,585	100% non-profit/charitable organizations	413-1
Employee hours #	15,252	15,595	29,338	20,993	29,165	Decrease due to COVID-19 health and safety precautions	413-1
Employee Volunteering During Working Hours: Days of Caring							
Events #	26	23	51	19	7	Decrease due to COVID-19 health and safety precautions	413-1
Organizations supported #	N/T	17	41	18	6	100% non-profit/charitable organizations	413-1
Employee hours #	1,932	2,022	3,021	640	110		413-1
Individuals supported #	55,755	36,490	54,090	29,983	11,144	Decrease due to COVID-19 health and safety precautions	413-1
Cost savings to community $	38,000	49,875	84,477	14,510	10,591	Decrease due to COVID-19 health and safety precautions	413-1
Community investment categorized via Business for Societal Impact							
Charitable Giving (Volunteer Grants, Payroll Matching, Days of Caring hours) %					41.7		413-1
Community Investment (Flagship partnerships, Global Emergency Responder Program, Global Environmental Stewardship Program, program management %					52.5		413-1
Commercial Initiatives (Event Sponsorships, Research) %					5.8		413-1
					100		413-1

MATERIAL TOPIC	2017	2018	2019	2020	2021	Context	GRI
GOVERNANCE							
Ratio of annual total compensation of highest-paid individual to median annual total compensation all permanent employees	25.5	41.3	39.5	29.1	29.2	Compensation includes base salary, short and long term incentive plans, and allowances (e.g., holiday pay) Not broken down by highest paid individual per country due to privacy regulations	102-38
Ratio of % change in CEO compensation to % change in employee median compensation	2:1	17:1	(2:1)	(3:1)	(1:1)	Executive structure changed May 2020; President is highest paid individual	102-39
ETHICS							
Requests for advice on ethical behaviour via corporate secretary	0	0	0	0	0		102-17
Concerns expressed via whistleblower line	1	0	5	3	1	All concerns were investigated and addressed	102-17, 102-34
Violations of rights, including those of Indigenous peoples	0	0	0	0	0		411-1
Legal actions regarding anti-competitive behaviour	0	0	0	0	0		206-1
Fines for non-compliance with laws & regulations ($)	0	0	0	0	0		206-1, 419-1
Political donations ($)	0	0	80	0	0	2019: tax receipt received for attendance at a community dinner that was also a political fundraiser; as a result, we updated our internal guidance and training to specify non-attendance at such events	415-1
ANTI-CORRUPTION							
% of operations assessed for risks related to corruption	100	100	100	100	100	Using Transparency International Corruption Perception Index	205-1
% of governance body communicated to on anti-corruption	100	100	100	100	100	Annual conduct policy acknowledgement	205-2a
# of employees communicated to on anti-corruption	506	553	730	746	716	Annual conduct policy acknowledgement	205-2b
% of employees communicated to on anti-corruption	100	99	100	100	100	Regional breakdown not required due to high coverage	205-2b
# of contractors communicated to on anti-corruption	179	265	326	215	232	Annual conduct policy acknowledgement	205-2b
% of contractors communicated to on anti-corruption	100	99	100	100	100	Regional breakdown not required due to high coverage	205-2b
% of business partners communicated to on anti-corruption	100	100	100	100	100	Business partners defined as joint venture partners	205-2c
# of governance body members trained on anti-corruption	9	10	10	9	9		205-2d
% of governance body members trained on anti-corruption	100	100	100	100	100		205-2d
# of employees and contractors trained on anti-corruption	66	266	301	41	68	2018+: New hire onboarding plus position-specific, in-depth training; 2019-20 decrease reflects lower new hire numbers	205-2e
% of employees and contractors trained on anti-corruption	13	26	29	4	7		205-2e
Confirmed incidents of corruption	0	0	0	0	0		206-1

Material Topic	2017	2018	2019	2020	2021	Context	GRI
OVERALL STAFF DEMOGRAPHICS							
Total staff (employees + contractors) (FTEs) Employees = permanent; Contractors = fixed-term contracts	**685**	**1023**	**1055**	**972**	**949**	Full time = 0.8 - 1 FTE Part time = 0.1 - 0.79 FTE	102-7
Staff by gender (all staff)							
Male	484	736	759	711	690		
% of male staff	71%	72%	72%	73%	73%		
Female	201	287	296	261	259		
% of female staff	29%	28%	28%	27%	27%		
Staff by employment contract & gender (all staff)							102-8a
Employees (Male)	360	488	580	542	519		
Employees (Female)	146	210	243	204	197		
Total Employees	**506**	**698**	**823**	**746**	**716**		
Contractors (Male)	124	248	179	169	171		
Contractors (Female)	55	77	53	57	62		
Total Contractors	**179**	**325**	**232**	**226**	**233**		
Staff by employment type & gender (all staff)							102-8c
Full-time (Male)	454	703	727	662	653		
Full-time (Female)	175	250	259	228	225		
Part-time (Male)	30	33	32	49	37	17	
Part-time (Female)	26	37	37	33	34		
Staff by region and gender (all staff)							102-8c
Australia - Male	72	71	66	61	66		
Australia - Female	20	11	12	11	11		
Total Australia	**92**	**82**	**78**	**72**	**77**		
Canada - Male	168	335	355	323	311		
Canada - Female	102	165	169	141	147		
Total Canada	**270**	**499**	**524**	**460**	**458**		
France - Male	163	113	105	108	100		
France - Female	50	53	53	51	45		
Total France	**166**	**166**	**158**	**159**	**145**		
Central & Eastern Europe - Male	7	8	11	10	10		
Central & Eastern Europe - Female	2	3	5	6	6		
Total Central & Eastern Europe	**9**	**11**	**16**	**16**	**16**		
Germany - Male	31	36	40	32	31		
Germany - Female	6	8	9	7	7		
Total Germany	**37**	**44**	**49**	**39**	**38**		
Ireland - Male		75	66	64	63		
Ireland - Female		23	22	22	23		
Total Ireland		**98**	**88**	**86**	**86**		
Netherlands - Male	84	82	92	91	86		
Netherlands - Female	16	14	12	13	10		
Total Netherlands	**100**	**96**	**104**	**104**	**96**		
United States - Male	6	16	24	22	23		
United States - Female	5	11	13	10	10		
Total United States	**11**	**27**	**38**	**32**	**33**		

Material Topic	2017	2018	2019	2020	2021	Context	GRI
Percentage of workers defined as self-employed	**5%**	**11%**	**7%**	**8%**	**7%**		102-8d
Significant variations in employment numbers (e.g. seasonal changes)	**None**	**None**	**None**	**None**	**None**		102-8e
Percentage of employees covered by collective bargaining agreements	**31%**	**23%**	**18%**	**20%**	**20%**	Zero sites where collective bargaining is at risk	102-41, 407-1
DETAILED EMPLOYEE DEMOGRAPHICS - by Age and Gender	Regional breakdown available by request					Broken down by region 2013-20; streamlined 2021	401-1
Total employees by age and gender (#)							
Male under 30	34	50	69	56	37		
Female under 30	10	17	19	14	11	<30: 7%	
Male 30-50	234	332	380	369	353		
Female 30-50	90	133	146	134	124	30-50: 66%	
Male over 50	92	106	116	117	129		
Female over 50	46	60	60	56	62	>50: 27%	
New hires by age and gender (#)						0.8-1.0 FTE permanent hires, including contractor conversions	
Male under 30	10	26	37	6	6		
Female under 30	1	9	13	2	2		
Male 30-50	21	109	70	17	14		
Female 30-50	6	52	24	2	10		
Male over 50	9	16	10	3	3		
Female over 50	1	16	3	1	6		
Total new hires (includes 10 contract conversions)	**48**	**228**	**157**	**31**	**41**		
Turnover by age and gender (#)							
Male under 30	2	4	9	5	11		
Female under 30	1	2	3	2	3		
Male 30-50	15	18	28	27	30		
Female 30-50	8	10	12	17	16		
Male over 50	14	13	10	16	8		
Female over 50	4	9	11	8	5		
Total turnover	**44**	**56**	**73**	**75**	**73**		
Turnover by age and gender (%)							
Male under 30	0.4%	0.7%	1.2%	0.6%	1.5%		
Female under 30	0.2%	0.3%	0.4%	0.3%	0.4%		
Male 30-50	3.0%	3.0%	3.7%	3.4%	4.1%		
Female 30-50	0.4%	0.4%	0.4%	0.5%	0.5%		
Male over 50	2.8%	2.2%	1.3%	2.0%	1.1%		
Female over 50	0.8%	1.5%	1.4%	1.0%	0.7%		
Total Global Turnover Rate	**8.7%**	**9.3%**	**9.6%**	**9.8%**	**10.0%**	Turnover based on average annual headcount	
Net employment creation, permanent employees	**4**	**171**	**84**	**-44**	**-32**	May not be exact match to Row 14 due to changes in contractor status during the year	401-1
PARENTAL LEAVE (maternity, paternity, parental)							401-3
Proportion of employees entitled to parental leave %	100	100	100	100	100	All employees eligible for parental leave for birth or adoption aligned with local legislation	
Number of male employees who took parental leave	7	6	5	5	16	Based on employees whose leave finished that year	
Number of female employees who took parental leave	6	7	9	10	7	"	
Total number of employees who took parental leave	**13**	**13**	**14**	**15**	**23**	"	

Material Topic	2017	2018	2019	2020	2021	Context	GRI
Number of male employees returned after parental leave	7	6	5	5	15	Returned from leave in the year forecast for return	
Number of female employees returned after parental leave	5	7	8	9	6	"	
Total number of employees returned after parental leave	**12**	**13**	**13**	**14**	**21**	"	
Rate of male employees who returned after parental leave	100%	100%	100%	100%	94%	"	
Rate of female employees who returned after parental leave	83%	100%	90%	93%	86%	"	
Retention: # of male employees 12 months after parental leave	6	6	5	5	8/9	Employed 12 months after their return date	
Retention: # of female employees 12 months after parental leave	2	5	7	8	5/6	"	
12-month retention rate: male employees	86%	100%	83%	100%	89%	"	
12-month retention rate: female employees	66%	100%	100%	100%	83%	"	
WOMEN IN LEADERSHIP - PERMANENT EMPLOYEES							
Number of women in all leadership roles (Team Lead and above)	21	32	28	30	31		
% of women in all leadership roles	**16**	**19**	**16**	**17**	**17**		
Number of women in executive roles (Vice President and above)					2	2021: first year of reporting	
% of women in executive roles					**17**	2021: 12 executive roles total	
TRAINING AND EDUCATION - PERMANENT EMPLOYEES							404-1
Hours of Training - Male	6,888	10,105	12,687	8,905	6,629		
Hours of Training - Female	1,638	2,918	2,927	1,363	1,790		
Total Hours of Training	**8,526**	**13,023**	**15,614**	**10,268**	**8,419**	2020-21: Reduced training due to COVID	
Average Hours of Training per employee - Male	19	21	22	16	13		
Average Hours of Training per employee - Female	11	14	13	6	9		
Average Hours of Training	**17**	**19**	**20**	**14**	**12**		
Administration Staff Hours of Training - Male	391	684	531	510	251		
Administration Staff Hours of Training - Female	877	1,427	1,388	610	516		
Production Staff Hours of Training - Male	6,497	9,422	12,156	8,395	6,378		
Production Staff Hours of Training - Female	391	1,491	1,539	753	1,274		
Administration Staff Average Hours of Training - Male	5	9	6	6	3		
Administration Staff Average Hours of Training - Female	8	11	9	4	4		
Production Staff Average Hours of Training - Male	23	23	26	18	15		
Production Staff Average Hours of Training - Female	24	19	25	14	22		
Hours of Training - all staff, including HSE and emergency response					13,864		
PERFORMANCE AND CAREER DEVELOPMENT - PERMANENT EMPLOYEES							404-3
Male employees with annual performance/career review	95%	100%	98%	97%	100%		
Female employees with annual performance/career review	94%	97%	95%	90%	95%		
Total employees with annual performance/career review	**92%**	**99%**	**97%**	**95%**	**99%**		

Material Topic	2017					2018					2019					2020					2021					Context	GRI/SASB
OCCUPATIONAL HEALTH AND SAFETY																											EN-EP-320a.1
Number of workers represented by HSE committees					685					1023					1055					972					949		413-1
% of workers represented by HSE committees					100					100					100					100					100	Every worker is represented by HSE	413-1
Workers with high risk of occupation-related disease					0					0					0					0					0		403-3
Hours of training: health, safety & emergency response					NT					NT					NT					5839					9415	Permanent and fixed term contract staff	
Average hours of training / staff & fixed term contractors					NT					NT					NT					6.0					9.9		403-3
TRIFR, STAFF & INDEPENDENT CONTRACTORS/VENDORS																											
Total recordable injury frequency per 200,000 hours					**1.33**					**0.94**					**1.28**					**1.21**					**1.14**	Year over year increase in 2019 TRIF was primarily driven by an increase in contractor and employee recordable injuries, and decrease in employee worked hours, partially offset by an increase in contractor worked hours	403-2
Total recordable injury frequency per 1,000,000 hours					**6.67**					**4.72**					**6.41**					**6.05**					**5.71**		403-2
INJURY RATES, STAFF (PERMANENT & FIXED TERM)																											
Types of injury – all staff (permanent and fixed term)	**F**	**LT**	**RW**	**MA**	**Total**	**F**	**LT**	**RW**	**MA**	**Total**	**F**	**LT**	**RW**	**MA**	**Total**	**F**	**LT**	**RW**	**MA**	**Total**	**F**	**LT**	**RW**	**MA**	**Total**	F Fatality LT Lost time RW Restricted Work MW Medical Aid	403-2
Canada	0	0	0	0	**0**	0	0	0	1	**1**	0	0	1	0	**1**	0	0	0	3	**3**	0	0	1	1	2		
France	0	1	0	0	**1**	0	0	0	1	**1**	0	2	0	1	**3**	0	1	0	0	**1**	0	2	0	0	2		
Netherlands	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	0		
Australia	0	0	0	1	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	0		
United States	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	0		
Germany	0	0	0	1	**1**	0	0	1	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	1	1	2		
Central and Eastern Europe						0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	0		
Ireland						0	0	0	0	**0**	0	0	0	1	**1**	0	0	0	0	**0**	0	1	0	0	1		
Corporate											0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	0	2020: Corporate fixed term hours separated out from Canada	
Injury rate – all staff					0.0000020					**0.0000010**					**0.0000014**					**0.0000021**					**0.0000013**	Injuries relative to total workforce hours	403-2
Canada					0					0.0000010					0.0000023					0.0000063					0.0000031		
France					0					0					0.0000101					0.0000036					0.0000072		
Netherlands					0					0.000000					0.0000000					0.0000000					0.0000000		
Australia					0.0000150					0					0.0000000					0.0000000					0.0000000		
United States					0					0					0.0000000					0.0000000					0.0000000		
Germany					0.0000217					0					0.0000000					0.0000000					0.0000299		
Central and Eastern Europe										0					0.0000000					0.0000000					0.0000000		
Ireland										0					0.0000067					0.0000000					0.0000067		
Corporate															0.0000000					0.0000000					0.0000000	2020: Corporate fixed term hours separated out from Canada	
LTIFR - all staff, per 1 million hours worked					**1.01**					**0.00**					**1.39**					**0.69**					**1.93**		403-2
TRIFR - all staff, per 1 million hours worked					**3.04**					**1.43**					**3.48**					**2.75**					**4.51**	2020 data change - formula correction	
Total Workforce Hours, all staff					987,115					2,102,880					1,435,976					1,454,292					1,553,092		403-2
Canada					463,752					1,015,040					429,021					476,152					647,523		
France					271,902					343,200					298,289					278,440					278,776		
Netherlands					121,016					199,680					111,117					121,236					95,700		
Australia					66,456					170,560					92,200					54,611					52,686		
United States					18,000					56,160					50,969					58,216					51,080		
Germany					45,989					91,520					76,493					70,225					66,871		
Central and Eastern Europe										22,880					15,080					21,400					13,920		
Ireland										203,840					149,052					149,360					149,514		
Corporate															213,755					224,652					197,022	2020: Corporate fixed term hours separated out from Canada	
Absentee rate – all staff					0.014					0.014					0.015					0.013					0.014	2012-2015: long-term disability days divided by total staff; 2016: absentee days due to S&LTD and sick leave divided by total days available for all permanent staff; 2020: available days refined to exclude paid time off days such as vacation, parental leave etc.	403-2
INJURY RATES, INDEPENDENT CONTRACTORS/VENDORS					**2017**					**2018**					**2019**					**2020**					**2021**		
Types of injury - independent contractors	**F**	**LT**	**RW**	**MA**	**Total**	**F**	**LT**	**RW**	**MA**	**Total**	**F**	**LT**	**RW**	**MA**	**Total**	**F**	**LT**	RW	MA	Total	**F**	**LT**	**RW**	**MA**	**Total**	F Fatality LT Lost time RW Restricted Work MW Medical Aid	403-2
Canada	0	2	5	4	**11**	0	1	3	7	**11**	0	3	3	10	**16**	0	0	0	8	**8**	0	2	4	3	9		
France	0	2	1	0	**3**	0	4	1	3	**8**	0	1	0	3	**4**	0	3	1	1	**5**	0	3	2	0	5		
Netherlands	0	0	0	0	**0**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**	0	0	0	1	1		
Australia	0	0	0	2	**2**	0	1	0	0	**1**	0	0	0	0	**0**	0	0	2	0	**2**	0	0	0	1	1		
United States	0	0	0	0	**0**	0	0	0	0	**0**	0	2	0	0	**2**	0	0	0	1	**1**	0	0	2	0	2		
Germany	0	0	1	0	**1**	0	0	2	0	**2**	0	2	0	0	**2**	0	5	1	0	**6**	0	0	1	0	1		
Central and Eastern Europe						0	0	0	0	**0**	0	1	0	0	**1**	0	0	0	0	**0**	0	0	0	1	1		
Ireland						0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	1	**1**	0	0	0	0	0		
Injury rate – independent contractors					**0.0000084**					**0.0000069**					**0.0000076**					**0.0000076**					**0.0000063**	Injuries relative to total independent contractor hours	403-2
Canada					0.0000109					0.0000066					0.0000077					0.0000218					0.0000182		
France					0.0000050					0.0000155					0.0000080					0.0000453					0.0000200		
Netherlands					0.0000000					0.0000000					0.0000073					0.0000000					0.0000069		

Material Topic	2017		2018		2019		2020		2021		Context	GRI/SASB
Australia		0.0000308		0.0000149		0.0000000		0.0000162		0.0000069		
United States		0.0000000		0.0000000		0.0000053		0.0000023		0.0000073		
Germany		0.0000095		0.0000355		0.0000155		0.0000612		0.0000143		
Central and Eastern Europe				0.0000000		0.0000233		0.0000000		0.0000028		
Ireland				0.0000000		0.0000054		0.0000033		0.0000000		
LTIFR - independent contractors: per 1 million hours worked		**1.99**		**1.88**		**2.53**		**2.66**		**1.58**		
TRIFR - independent contractors: per 1 million hours worked		**8.45**		**6.88**		**7.59**		**7.65**		**6.30**		403-2
Contractors Hours Worked		2,012,886		3,199,011		3,555,534		3,007,889		3,172,636		
Canada		1,008,836		1,662,745		2,081,367		1,522,205		1,337,945		
France		600,819		517,335		500,172		367,150		494,200		
Netherlands		121,805		261,312		136,735		110,449		249,585		
Australia		64,992		67,224		105,783		123,762		145,620		
United States		110,974		262,399		374,882		438,992		274,397		
Germany		105,460		56,266		128,811		97,970		70,056		
Central and Eastern Europe				75190		42,857		47,836		357,844		
Ireland				296540		184,928		299,525		242,989		
Absentee rate – independent contractors		N/T		**N/T**		**N/T**		**N/T**		**N/T**	Current system does not track absentee days for independent contractors	403-2

MATERIAL TOPIC: ENERGY & EMISSIONS	2017	2018	2019	2020	2021	CONTEXT	GRI/SASB
Methodology Note: all energy and emissions data, unless specifically noted otherwise, are based on operational control at the battery level. In 2020, we added production data that provides improved comparability for related intensities back to 2014, to support external ESG analysis.							
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185	36,630,232	34,839,540	31,173,190		
Annual Production - Annual Report minus non-operated volumes as referenced in CDP submissions: boe	21,273,660	28,712,829	36,604,811	34,723,518	31,154,575	**2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU**	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819	44,680,354	42,202,207	36,865,352	**Use for energy and emissions intensity calculations to ensure numerator/denominator alignment**	
ENERGY	**2017**	**2018**	**2019**	**2020**	**2021**		
Scope 1: Energy consumption within organization, non-renewable (natural gas, propane liquid, diesel fuel and vehicle fuel): GJ	**2,975,227**	**4,132,866**	**5,554,821**	**5,172,331**	**4,806,111**		**302-1**
Canada	1,929,996	2,809,879	3,592,038	3,223,562	2,907,176		
France	20,583	0	0	3,143	6,280		
Netherlands	77,023	60,390	72,585	73,037	74,841		
Australia	812,226	864,934	722,623	843,308	813,213		
United States	114,077	199,893	204,576	111,857	78,669		
Germany	21,323	120,844	135,350	108,675	112,212		
Central and Eastern Europe - Hungary and Croatia		2,932	9,236	5,119	16,544		
Ireland		73,996	818,413	803,630	797,175		
Energy intensity ratio Scope 1: GJ/boe		**0.14**	**0.12**	**0.12**	**0.13**		
Scope 2: Energy consumption outside organization, non-renewable (electricity): GJ	**833,841**	**1,403,021**	**2,077,646**	**1,232,392**	**1,049,524**	**1 MWh = 3.6 GJ**	**302-2**
Canada	232,346	750,356	1,352,186	1,117,288	973,345		
France	581,926	623,641	679,640	60,296	16,762	2020 and 2021 reflect remewable energy breakout	
Netherlands	0	0	0	0	0	Guarantees of Origin green electricity 2017-2021; electricity consumed 2021 = 84,674 MWh	
Australia	727	669	587	383	463		
United States	4,229	10,969	30,803	45,119	45,273		
Germany	14,612	17,369	11,592	6,853	13,470	2020 and 2021 reflect remewable energy breakout	
Central and Eastern Europe - Hungary and Croatia		17	0	229	210		
Ireland		0	2,838	2,224	0	Purchase of electricity from renewable fuels 2021; electricity consumed 2021 = 792.9 MWh	
Energy intensity ratio Scope 2: GJ/boe		**0.05**	**0.05**	**0.03**	**0.03**		
Energy intensity ratio Scope 1+2: GJ/boe	**0.20**	**0.19**	**0.17**	**0.15**	**0.16**	**2012-2013: operated battery energy use/operated and financial production 2014+: operated battery energy use/operated battery production**	**302-3**
Renewable energy	**2017**	**2018**	**2019**	**2020**	**2021**		
Total amount invested in renewable energy, CAD	**$446,385**	**$1,306,667**	**$446,778**	**$568,182**	**$2,887,512**		**OG2**
Canada	$0	$391,000	$220,000	$230,000	$2,461,000	DCET solar panels, 16-31 EPOD, solar pump retrofits, RTO remote monitoring devices, existing EFOY	
France	$12,000	$312,000	$190,000	$270,000	$388,455	4 geothermal from produced water projects; turbine pilot; hydrogen research	
Netherlands	$434,385	$603,667	$36,778	$68,182	$23,680		
Australia	$0	$0	$0	$0	$0		
United States	$0	$0	$0	$0	$0		
Germany	$0	$0	$0	$0	$0		
Central and Eastern Europe - Hungary and Croatia		$0	$0	$0	$0		
Ireland		$0	$0	$0	$14,377	hydrogen research	
Renewable energy investment: % of capital expenditure	**0.1**	**0.3**	**0.1**	**0.2**	**0.8**		**OG2**
Renewable energy GHG emissions avoided: tCO2e	**22,333**	**24,566**	**24,623**	**18,993**	**18,635**		**OG3, OG4, OG5**
Renewable energy generated by source (actual energy content transferred): MWh	**70,080**	**77,088**	**77,095**	**59,330**	**58,004**		
Canada	0	0	7	11	19		
France	70,080	77,088	77,088	59,319	57,985		
Netherlands	0	0	0	0	0		
Australia	0	0	0	0	0		
United States	0	0	0	0	0		
Germany	0	0	0	0	0		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0		
Ireland		0	0	0	0		
EMISSIONS	**2017**	**2018**	**2019**	**2020**	**2021**		**GRI**
Percentage of total emissions under emissions-limiting regulations			**91%**	**89%**	**87%**	**All BUs except US & Australia operate in regions under some form of emissions limiting regulations: e.g. EU ETS, carbon taxes, carbon pricing**	**EM-EP-110a.1.4**
Scope 1 gross direct GHG emissions: tonne	**344,186**	**742,175**	**858,823**	**793,203**	**648,337**		**305-1**
CO_2 Scope 1 emissions (excluding CH4 and N2O): tonne	**278,143**	**456,817**	**555,687**	**531,078**	**466,472**	**Hydrofluorocarbons, Perfluorocarbons, Sulfur hexafluride, VOCs, particulates not tracked**	**305-1, SS**

MATERIAL TOPIC: ENERGY & EMISSIONS	2017	2018	2019	2020	2021	CONTEXT	GRI/SASB
Methodology Note: all energy and emissions data, unless specifically noted otherwise, are based on operational control at the battery level. In 2020, we added production data that provides improved comparability for related intensities back to 2014, to support external ESG analysis.							
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185	36,630,232	34,839,540	31,173,190		
Annual Production - Annual Report minus non-operated volumes as referenced in CDP submissions: boe	21,273,660	28,712,829	36,604,811	34,723,518	31,154,575	**2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU**	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819	44,680,354	42,202,207	36,865,352	**Use for energy and emissions intensity calculations to ensure numerator/denominator alignment**	
Canada	133,430	300,947	374,495	354,167	283,298	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	
France	63,197	61,169	64,419	56,764	65,665		
Netherlands	23,954	15,198	11,403	8,393	6,803		
Australia	42,409	46,587	42,024	50,209	50,627		
United States	13,693	19,152	15,409	13,253	11,949		
Germany	1,460	9,710	4,069	7,262	6,408		
Central and Eastern Europe - Hungary and Croatia		285	2,260	357	1,146		
Ireland		3,769	41,608	40,673	40,576	Increase reflects Corrib change to operating control ~1 month in 2018 and full year 2019	
Methane: tCO2e	**65,782**	**284,762**	**302,027**	**261,051**	**180,987**		**SS**
Canada	30,847	241,279	258,500	216,739	144,005		
France	9,236	10,197	8,499	8,752	8,009		
Netherlands	8,315	5,318	4,018	5,215	3,265		
Australia	13,611	16,961	18,601	21,373	18,655		
United States	370	1,468	3,981	4,436	4,739		
Germany	3,403	9,101	7,492	3,284	1,763		
Central and Eastern Europe - Hungary and Croatia		384	244	656	1		
Ireland		54	692	597	550	Increase reflects Corrib change to operating control ~1 month in 2018 and full year 2019	
Methane as a % of total Scope 1 direct GHG emissions		**38**	**35**	**33**	**28**		**EM-EP-110a.1.3**
Nitrous Oxide (N_2O): tCO2e	**260**	**596**	**1,109**	**1,073**	**878**		**SS**
Canada	99	378	465	505	290		
France	102	107	547	428	462		
Netherlands	0	22	7	28	12		
Australia	57	82	68	90	104		
United States	1	5	16	18	3		
Germany	1	2	1	4	4		
Central and Eastern Europe - Hungary and Croatia		0	5	0	3		
Ireland		0	0	0	0		
Scope 1 GHG emissions intensity, oil and gas production: tCO2e/boe	**0.018**	**0.025**	**0.019**	**0.019**	**0.018**	**2012-2013: operated battery Scope 1 emissions/operated and financial production 2014+: operated battery Scope 1 emissions/operated battery production**	**305-4**
Total Scope 2 GHG emissions: tCO2e	**60,904**	**173,847**	**288,345**	**247,144**	**214,778**		**305-2**
Canada	55,088	160,369	269,349	222,010	194,319	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	
France	8,959	11,444	6,808	8,628	2,661		
Netherlands	(4,328)	0	0	0	0		
Australia	141	130	114	73	88		
United States	308	787	10,231	14,425	13,856		
Germany	735	1,090	1,575	1,735	3,845		
Central and Eastern Europe - Hungary and Croatia		1	0	11	10		
Ireland		25	268	262	0		
Scope 2 GHG emissions intensity: tCO2e per boe	**0.003**	**0.006**	**0.006**	**0.006**	**0.006**	**2012-2013: operated battery Scope 2 emissions/operated and financial production 2014+: operated battery Scope 2 emissions/operated battery production**	**305-5**
Scope 1+2 GHG emissions intensity: tCO2e per boe	**0.021**	**0.031**	**0.026**	**0.025**	**0.023**	**2012-2013: operated battery Scope 1+2 emissions/operated and financial production 2014+: operated battery Scope 1+2 emissions/operated battery production**	
Scope 3 Gross other indirect GHG emissions: tCO2e	**8,393,391**	**12,408,270**	**14,188,122**	**13,226,527**	**11,631,963**		**305-3**
Biogenic CO_2 Scope 3 emissions	0	0	0	0	0		305-3
Estimated Scope 3 associated with product end use: tCO2e	7,674,486	11,311,601	12,937,168	12,176,323	10,624,199		SS
Emissions of ozone-depleting substances	**0**	**0**	**0**	**0**	**0**		**305-6**
Nox: tonne	**26**	**29**	**2,136**	**1,190**	**977**		**305-7**
Canada	Not Tracked	Not Tracked	1,912	1,011	818		
France	18	22	51	45	50		
Netherlands	7	7	2	4	2		
Australia	Not Tracked	Not Tracked	171	131	104		
United States	Not Tracked	Not Tracked	Not Tracked	Not Tracked	Not Tracked		
Germany	Not Tracked	Not Tracked	Not Tracked	Not Tracked	2		
Central and Eastern Europe - Hungary and Croatia		Not Tracked	Not Tracked	Not Tracked	Not Tracked		
Ireland		Not Tracked	Not Tracked	Not Tracked	Not Tracked		
SO2: tonne	**675**	**736**	**2,488**	**2681**	**2219**		**305-7**

MATERIAL TOPIC: ENERGY & EMISSIONS	2017	2018	2019	2020	2021	CONTEXT	GRI/SASB
Methodology Note: all energy and emissions data, unless specifically noted otherwise, are based on operational control at the battery level. In 2020, we added production data that provides improved comparability for related intensities back to 2014, to support external ESG analysis.							
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185	36,630,232	34,839,540	31,173,190		
Annual Production - Annual Report minus non-operated volumes as referenced in CDP submissions: boe	21,273,660	28,712,829	36,604,811	34,723,518	31,154,575	**2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU**	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819	44,680,354	42,202,207	36,865,352	**Use for energy and emissions intensity calculations to ensure numerator/denominator alignment**	
Canada	166	198	1800	1,935	1,360	2019 and 2020 updated in 2022 (revised calculation)	
France	509	538	682	737	851		
Netherlands	0	0	0	0	0		
Australia	0	0	0	0.7	0.9		
United States	0	0	5	8	7		
Germany	0	0	0	0	0		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0		
Ireland		0	0	0	0		
Volatile Organic Compounds (VOCs) (non-methane): tonne						**Volatile organic compounds that participate in atmospheric photochemical reactions; excludes carbon monoxide, carbon dioxide and methane**	**305-7**
Canada			68	Not Tracked	138		
France			Not Tracked	128	181		
Netherlands			Not Tracked	13	19		
Australia			Not Tracked	Not Tracked	Not Tracked		
United States			Not Tracked	Not Tracked	278		
Germany			Not Tracked	4	5		
Central and Eastern Europe - Hungary and Croatia			Not Tracked	Not Tracked	Not Tracked		
Ireland			Not Tracked	Not Tracked	Not Tracked	Ireland is below the regulatory reporting threshold for NMVOC.	
Particulate Matter (PM10): tonne						**Airborne finely divided solid or liquid material with an aerodynamic diameter ≤ 10 micrometers**	**305-7**
Canada			125	219	9		
France			Not Tracked	3	2		
Netherlands			Not Tracked	Not Tracked	Not Tracked		
Australia			Not Tracked	8	12		
United States			Not Tracked	Not Tracked	Not Tracked		
Germany			Not Tracked	Not Tracked	Not Tracked		
Central and Eastern Europe - Hungary and Croatia			Not Tracked	Not Tracked	Not Tracked		
Ireland			Not Tracked	Not Tracked	Not Tracked		
FLARING AND VENTING	**2017**	**2018**	**2019**	**2020**	**2021**		
Volume of flared hydrocarbon: e3m3/yr	**35,920**	**69,906**	**78,962**	**83,116**	**66,563**	**Note that all flared volumes are reported, not just continous flares**	**OG6**
Canada	12,023	45,455	55,526	62,108	42,144	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	OG6
France	21,492	21,261	20,123	17,797	20,456		OG6
Netherlands	472	201	235	236	287		OG6
Australia	309	788	1,351	1,413	1,688		OG6
United States	1,561	1,858	780	1,379	1,713		OG6
Germany	64	289	23	31	58		OG6
Central and Eastern Europe - Hungary and Croatia		32	763	0	0		OG6
Ireland		22	161	152	217		OG6
Volume of continuously vented hydrocarbon: e3m3/yr	**3,256**	**12,318**	**14,222**	**9,758**	**10,441**		**OG6**
Canada	648	9,447	11,424	6,968	8,442	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	OG6
France	773	847	729	765	696		OG6
Netherlands	194	260	62	189	66		OG6
Australia	919	1,097	1,390	1,446	1,158		OG6
United States	9	25	48	45	24		
Germany	713	617	526	275	21		OG6
Central and Eastern Europe - Hungary and Croatia		21	11	37	0		OG6
Ireland		3	33	33	35		OG6
Flaring/Venting Intensity based on production: e3m3/boe	**0.0021**	**0.0028**	**0.0021**	**0.0022**	**0.0021**	**2012-2013: operated battery flaring and venting/operated and financial production 2014+: operated battery flaring and venting emissions/operated battery production**	**OG6**
Hydraulic Fracturing						**Hydraulic fracturing used in Canadian and US operated production**	
Percentage of global production from hydraulic fracturing		40	42	37	49	% is approximate based on 100% fracked in US, estimated 51% in Canada, and 0% in Europe and Australia.	

MATERIAL TOPIC: ENERGY & EMISSIONS	2017	2018	2019	2020	2021	CONTEXT	GRI/SASB
Methodology Note: all energy and emissions data, unless specifically noted otherwise, are based on operational control at the battery level. In 2020, we added production data that provides improved comparability for related intensities back to 2014, to support external ESG analysis.							
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185	36,630,232	34,839,540	31,173,190		
Annual Production - Annual Report minus non-operated volumes as referenced in CDP submissions: boe	21,273,660	28,712,829	36,604,811	34,723,518	31,154,575	**2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU**	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819	44,680,354	42,202,207	36,865,352	**Use for energy and emissions intensity calculations to ensure numerator/denominator alignment**	
Percentage of public disclosure of hydraulic fracturing fluids						**All fracturing fluids are disclosed through FracFocus**	
Canada			100	100	100		EN-EP-140a.3
United States			100	100	100	No proprietary blends used	
Enhanced Oil Recovery from Carbon Capture and Storage						**Based on non-operated production**	
Volume of oil and NGLs produced from CCS ops: bbls/d, equity basis		2,321	2,045	2,098	2,065	Weyburn Carbon Capture and Storage project: non-operated	
CCS ops percentage of total (global) oil and NGLs produced: equity basis		5	4	4	4	Global oil & NGLs 2018 Equity/Financial Control: 45,548 bbl/d Global oil & NGLs 2019 Equity/Financial Control: 55,886 bbl/d Global oil & NGLs 2020 Equity/Financial Control: 52,358 bbl/d	

MATERIAL TOPIC: WATER, INCLUDING PRODUCED WATER	2017	2018	2019	2020	2021	CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185	36,630,232	34,839,540	31,173,190		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	21,273,660	28,712,829	36,604,811	34,723,518	31,154,575	**2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU**	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819	44,708,966	42,202,207	36,865,352	**Use for water intensity calculations to ensure numerator/denominator alignment**	
WATER WITHDRAWALS	**2017**	**2018**	**2019**	**2020**	**2021**		**GRI**
Total water withdrawal including produced water: ML	**25,880**	**43,041**	**70,158**	**67,202**	**65,605**	**From 2012-2018, Vermilion reported the production and re-use of produced water separate from water withdrawn from other sources. For 2019 data onwards, we have updated our reporting to more closely align with CDP's definitions, reflecting our first CDP Water Security submission and also informed by GRI 303 (2018) and SASB EM-EP-140a.1 and 2. This includes metrics conversion from m3 to ML (ML = m3/1000).**	
Canada	2,441	17,833	39,234	34,852	31,638		
France	14,407	15,730	14,863	13,903	13,709		
Netherlands	41	46	25.4	24.6	14.9		
Australia	8,400	8,795	15,270	17,386	18,912		
United States	90	108	326	384	302		
Germany	502	526	397	628	1,005		
Central and Eastern Europe - Hungary and Croatia		1	4	1.6	0.9		
Ireland		2	36	24	24		
Total water withdrawal excluding produced water: ML	**821**	**767**	**7,009**	**8,248**	**9,590**	**85% of water withdrawal is produced water**	**303-1**
Canada	82	113	187	141	154		
France	504	625	494	581	420		
Netherlands	30	27	11	4.6	5.4		
Australia	183	0	6,189	7,398	8,949		
United States	23	0	106	109	51		
Germany	0	0	3	1.7	0.7		
Central and Eastern Europe - Hungary and Croatia		1	4	1.6	0.9		
Ireland		2	16	12	9		
Total Water Withdrawal including produced water, by source							
Surface/Freshwater, including rainwater, wetlands, rivers, lakes: ML	**12**	**16**	**44**	**12**	**124**	**Total dissolved solids <10,000mg/L**	**303-1**
Canada	12	16	40	12	124	2021 increase offset by reduction in use of renewable groundwater	
France	0	0	0	0	0		
Netherlands	0	0	4	0	0		
Australia	0	0	0	0	0		
United States	0	0	0	0	0		
Germany	0	0	0	0	0		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0		
Ireland		0	0	0	0		
Surface/Brackish water, including oceans: ML	**183**	**213**	**198**	**7,398**	**8,949**	**Total dissolved solids >10,000mg/L**	
Australia	183	213	6,189	7,398	8,949	Only applicable in Australia	
Groundwater - renewable: ML	**569**	**700**	**622**	**691**	**436**	**Generally shallower groundwater resources that can be replenished/recharged within ~50 years**	**303-1**
Canada	62	82	128	116	22		
France	494	618	494	575	414		
Netherlands	12	1	0	0	0		
Australia	0	0	0	0	0		
United States	0	0	0	0	0		
Germany		0	0	0.5	0		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0		
Ireland		0	0	0	0		
Groundwater - non-renewable, excluding produced water: ML	**23**	**47**	**106**	**109**	**109**	**Generally deeper groundwater resources that have negligible recharge within ~50 years**	
United States	23	47	106	109	50		
Groundwater - non-renewable, produced water: ML	**25,059**	**42,274**	**63,148**	**58,955**	**56,016**	**Includes formation water, flow-back water and condensation water**	
Canada	2,359	17,720	39,047	34,711	31,484		
France	13,903	15,105	14,370	13,322	13,289		
Netherlands	11	20	14	20	9.5		
Australia	8,217	8,795	9,082	9,988	9,963		
United States	67	108	221	275	251		
Germany	502	526	395	626	1,004		

MATERIAL TOPIC: WATER, INCLUDING PRODUCED WATER	2017	2018	2019	2020	2021	CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185	36,630,232	34,839,540	31,173,190		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	21,273,660	28,712,829	36,604,811	34,723,518	31,154,575	2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819	44,708,966	42,202,207	36,865,352	Use for water intensity calculations to ensure numerator/denominator alignment	
Central and Eastern Europe - Hungary and Croatia		0	0	0	0		
Ireland		0	20	12	15		
Third-party sources - Municipal water supplies or utilities: ML	**18**	**51**	**49**	**38**	**29**		**303-1**
Canada	7	15	19	13	7		
France	10	7	0	6	6		
Netherlands	0	26	8	4.6	5.4		
Australia	0	0	0	0	0		
United States	1	0	0	0.3	0.3		
Germany	0	0	2.2	1.2	0.7		
Central and Eastern Europe - Hungary and Croatia		1	4	1.6	0.9		
Ireland		2	16	11.5	9.4		
Total Freshwater Withdrawal = renewable groundwater + surface water + third party potable sources: ML	**598**	**767**	**715**	**741**	**590**		
Total freshwater intensity: ML/operated boe	**0.000031**	**0.000026**	**0.000016**	**0.000018**	**0.000016**		
Water sources significantly affected by water withdrawal: #	**0**	**0**	**0**	**0**	**0**	**Defined as sustained inability to meet human &/or ecological requirements of availability, quality or accessibility**	**303-2**
Water recycled and reused = reduction in water use: ML	**0**	**0**	**0**	**0**	**0**		**303-2**
Water recycled and reused: %	**0%**	**0%**	**0%**	**0%**	**0%**	**Based on water withdrawals excluding produced water**	**303-3**
WATER DISCHARGE	**2017**	**2018**	**2019**	**2020**	**2021**	**Effective 2019, water discharge is reported in alignment with CDP definitions for destinations**	
Total water discharge all destinations, including produced water: ML			**70,158**	**67,203**	**65,603**		
Canada			39,234	34,847	31,638		
France			14,863	13,903	13,709		
Netherlands			25.4	24.6	12.9		
Australia			15,270	17,386	18,912		
United States			326	384	302		
Germany			397	630	1,005		
Central and Eastern Europe - Hungary and Croatia			4	3.9	0.9		
Ireland			36	24	24		
Total water discharge excluding produced water: ML	**8,269**	**8,896**	**6,484**	**7,667**	**9,168**		
Canada	0	15	181	136	154		
France	0	0	0	0	0		
Netherlands	51	58	20	4.6	3		
Australia	8,217	8,795	6,189	7,398	8,949		
United States	0	0	51	109	51		
Germany	0	0	3	4	0.7		
Central and Eastern Europe - Hungary and Croatia		0	4	4	0.9		
Ireland		28	36	12	9		
Surface/Freshwater, including rainwater, wetlands, rivers, lakes: ML			**0**	**0**	**0**		
Surface/Brackish water, including oceans: ML			**15,272**	**17,386**	**18,912**		
Australia			15,270	17,386	18,912		
Ireland			2.1	0	0	No produced water discharged offshore in 2020 or 2021	
Groundwater - renewable: ML			**3**	**2**	**11**		
Canada			3	2	11		
France			0	0	0		
Netherlands			0	0	0		
Australia			0	0	0		
United States			0	0	0		
Germany			0	0	0		
Central and Eastern Europe - Hungary and Croatia			0	0	0		
Ireland			0	0	0		
Groundwater - non-renewable, excluding produced water: ML			**0**	**0**	**0**		
United States			0	109	32		
Groundwater - non-renewable, produced water: ML			**54,592**	**48,910**	**46,005**		

MATERIAL TOPIC: WATER, INCLUDING PRODUCED WATER	2017	2018	2019	2020	2021	CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185	36,630,232	34,839,540	31,173,190		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	21,273,660	28,712,829	36,604,811	34,723,518	31,154,575	**2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU**	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819	44,708,966	42,202,207	36,865,352	**Use for water intensity calculations to ensure numerator/denominator alignment**	
Canada			39,053	34,681	31,442		
France			14,863	13,322	13,289		
Netherlands			5	6	0.02		
Australia			0	0	0		
United States			276	275	270		
Germany			395	626	1,004		
Central and Eastern Europe - Hungary and Croatia			0	0	0		
Ireland			0	0	0		
Third-party facilities - Municipal or Private: ML			**289**	**792**	**643**		
Canada			178	165	184		
France			0	581	420		
Netherlands			20	19	13		
Australia			0	0	0		
United States			51	0.5	0.5		
Germany			2.2	1.7	0.7		
Central and Eastern Europe - Hungary and Croatia			4	1.6	0.9		
Ireland			34	24	24		
Other - Water still in storage - NL only			**0**	**0**	**2**		
Water bodies significantly affected by discharges of water	**0**	**0**	**0**	**0**	**0**	**Defined as sustained inability to meet human &/or ecological requirements of availability, quality, accessibility**	**306-5**
Volume and % of produced water by disposal method:							**OG5**
Reused: % and volume	**0**	**0**	**0**	**0**	**0**		**OG5**
Recycled: %	**0**	**0**	**0**	**0**	**0**		
Recycled - volume: ML	**0**	**1**	**0**	**0**	**0**		**OG5**
Canada	0	0	0	0	0		
France	0	0	0	0	0		
Netherlands	0	0	0	0	0		
Australia	0	0	0	0	0		
United States	0	0	0	0	0		
Germany	0	1	0	0	0		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0		
Ireland		0	0	0	0		
Reinjected: %	**67**	**79**	**86**	**83**	**82**		
Reinjected - volume: ML	**16,796**	**33,450**	**54,037**	**48,840**	**46,028**		**OG5**
Canada	2,338	17,728	39,047	34,711	31,484		
France	13,903	15,105	14,370	13,222	13,289		
Netherlands	4	9	5	6	0.02		
Australia	0	0	0	0	0		
United States	49	83	221	275	251		
Germany	502	526	395	626	1,004		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0		
Ireland		0	0	0	0		
Hydrocarbon discharged within produced water: tonnes	**115**	**70**	**73**	**117**	**99**	**Refers to discharges to surface water or renewable (shallow) groundwater**	**OG5**
Canada	0	0	0	0	0		OG6
France	0	0	0	0	0		OG6
Netherlands	0	0	0	0	0		OG6
Australia	115	70	73	117	99		OG6
United States	0	0	0	0	0		OG6
Germany	0	0	0	0	0		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0		
Ireland		0.4	0	0	0		
Annual Water Consumption: ML			**0**	**0**	**0**	**Total water withdrawals - total water discharges**	
Percentage of workers with fully-functioning, safely managed WASH (water, sanitation and hygiene facilities)			**100**	**100**	**100**	**New data reported beginning in 2019 to align with CDP**	

MATERIAL TOPIC - ASSET INTEGRITY & SPILLS (RELEASES)	2017	2018	2019	2020	2021	CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185	36,630,232	34,839,540	31,173,190		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	21,273,660	28,712,829	36,604,811	34,723,518	31,154,575	**2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU**	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819	44,708,966	42,202,207	36,865,352	**Use for intensity calculations to ensure numerator/denominator alignment**	
ASSET INTEGRITY AND PROCESS SAFETY	**2017**	**2018**	**2019**	**2020**	**2021**		**OG13**
Number of Tier 1 process safety events	**0**	**0**	**0**	**0**	**0**		**OG13 & EM-EP-540a.1**
Canada	0	0	0	0	0		
France	0	0	0	0	0		
Netherlands	0	0	0	0	0		
Australia	0	0	0	0	0		
United States	0	0	0	0	0		
Germany	0	0	0	0	0		
Central and Eastern Europe - Hungary		0	0	0	0		
Ireland		0	0	0	0		
Number of Tier 2 process safety events	**69**	**96**	**162**	**89**	**61**		**OG13**
Canada	42	71	109	52	25		
France	3	5	3	5	6		
Netherlands	13	15	17	2	1		
Australia	6	1	7	0	0		
United States	0	2	20	22	23		
Germany	5	1	0	8	6		
Central and Eastern Europe - Hungary and Croatia		1	0	0	0		
Ireland		0	6	0	0		
SPILLS (RELEASES)	**2017**	**2018**	**2019**	**2020**	**2021**	**Reporting includes all spills (including those less than 1 bbl or 0.16m3, and those that were contained behind impermeable secondary containment) Reporting switched from m3 to bbl in 2020 for SASB alignment**	**EM-EP-160a.2.**
Number of significant spills, defined as included in financial statements due to resulting liabilities	**0**	**0**	**0**	**0**	**0**	**No significant spills requiring reporting in financial statements 2012-2021**	**306-3**
Total number of all spills	**170**	**268**	**445**	**410**	**368**		**306-3**
Canada	88	159	281	280	244		
France	47	61	51	50	46		
Netherlands	18	18	35	26	36		
Australia	9	10	8	8	9		
United States	3	6	63	38	27		
Germany	5	14	7	8	6		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0		
Ireland		0	11	10	3		
Volume of all spills: bbl	**198**	**4,858**	**9,377**	**16,375**	**3,216**	**See below for breakout of total volume into hydrocarbon, produced water and other, which we began reporting with our 2019 data**	**306-3**
Canada	90	4,630	7,666.6	15,825.1	2,971.2		
France	72	95	540.7	195.0	75.5		
Netherlands	15	75	39.0	65.4	74.0		
Australia	15	1	53.7	0.1	1.1		
United States	6	48	1,067.7	241.8	90.2		
Germany	0	9	6.9	46.3	3.6		
Central and Eastern Europe - Hungary and Croatia		0	0.0	0.0	0.0		
Ireland		0	2.5	1.2	0.1		
Volume of spills - Hydrocarbon Liquids: bbl			**469**	**1,226**	**258**	**Reporting includes all spills (including those less than 1 bbl or 0.16m3, and those that were contained behind impermeable secondary containment); Zero spills in Arctic**	**EM-EP-160a.2**
Canada			339.5	962.3	192.1		
France			30.2	163.5	37.7		
Netherlands			0.0	5.0	1.3		
Australia			15.3	0.1	1.1		
United States			81.4	93.7	25.3		
Germany			0.4	0.1	0.5		
Central and Eastern Europe - Hungary and Croatia			0.0	0.0	0.0		
Ireland			2.0	0.8	0.1		
Volume of spills - Produced Water: bbl			**8,763**	**14,908**	**2,886**		
Canada			7,289.4	14,667.8	2,774.6		

MATERIAL TOPIC - ASSET INTEGRITY & SPILLS (RELEASES)	2017	2018	2019	2020	2021	CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185	36,630,232	34,839,540	31,173,190		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	21,273,660	28,712,829	36,604,811	34,723,518	31,154,575	**2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU**	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819	44,708,966	42,202,207	36,865,352	**Use for intensity calculations to ensure numerator/denominator alignment**	
France			460.2	31.4	37.7		
Netherlands			18.9	19.1	8.5		
Australia			1.9	0.0	0.0		
United States			986.3	148.1	64.9		
Germany			6.4	41.5	0.0		
Central and Eastern Europe - Hungary and Croatia			0.0	0.0	0.0		
Ireland			0.1	0.0	0.0		
Volume of spills - Other: bbl			**145**	**241**	**72**		
Canada			37.7	195.0	4.5		
France			50.3	0.0	0.1		
Netherlands			20.1	41.3	64.3		
Australia			36.5	0.0	0.0		
United States			0.0	0.0	0.0		
Germany			0.1	4.7	3.2		
Central and Eastern Europe - Hungary and Croatia			0.0	0.0	0.0		
Ireland			0.4	0.3	0.0		

MATERIAL TOPIC - WASTE	2017	2018	2019			2020			2021			CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185			36,630,232			34,839,540			31,173,190		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	21,273,660	28,712,829			36,604,811			34,723,518			31,154,575	2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819			44,708,966			42,202,207			36,865,352	Use for intensity calculations to ensure numerator/denominator alignment	
WASTE	2017	2018	2019			2020			2021			Waste disposal data based on direct confirmation or information provided by the waste disposal contractor	GRI
			Hazardous	Non-Hazardous	Total	Hazardous	Non-Hazardous	Total	Hazardous	Non-Hazardous	Total	We refined our reporting in 2019 to provide hazardous and non-hazardous waste breakdowns	
Waste by type and disposal method - Total: metric tonne	**124,160**	**151,230**	**17,637**	**118,483**	**136,120**	**19,973**	**74,107**	**94,079**	**16,224**	**138,050**	**154,273**		**306-2**
Canada	52,056	56,140	8,010	70,667	78,677	8,927	57,550	66,477	11,081	98,163	109,245		
France	2,674	4,505	1,384	2,589	3,972	619	1,754	2,372	319	224	543		
Netherlands	51,386	58,003	7,694	0	7,694	9,693	0	9,693	4,179	98	4,277		
Australia	475	665	89	465	554	163	156	319	453	123	576		
United States	17,568	28,578	0	37,753	37,753	0	14,539	14,539	0	38,895	38,895		
Germany	0	602	304	2,201	2,505	296	18	315	110	373	483		
Central and Eastern Europe - Hungary and Croatia		877	0	0	0	0	0	0	0	0	0		
Ireland		1,860	156	4,808	4,965	274	91	365	81	174	255		
Reuse: metric tonne	**1,999**	**585**	**0**	**11**	**11**	**0**	**4**	**4**	**0**	**14**	**14**		**306-2**
Canada	1,891	0	0	0	0	0	0	0	0	0	0		
France	0	0	0	0	0	0	0	0	0	0	0		
Netherlands	0	562	0	0	0	0	0	0	0	0	0		
Australia	108	23		11	11	0	4	4	0	4	4		
United States	0	0	0	0	0	0	0	0	0	0	0		
Germany	0	0	0	0	0	0	0	0	0	10	10		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0	0	0	0	0	0	0		
Ireland		0			0	0	0	0	0	0	0		
Recycling: metric tonne	**51,402**	**49,422**	**1,150**	**5,078**	**6,228**	**1,617**	**1,882**	**3,498**	**1,444**	**437**	**1,881**		**306-2**
Canada	218	13	0	42	42	0	45	45	9	4	13		
France	189	305	139	46	185	223	1,727	1,950	16	209	225		
Netherlands	50,923	48,956	1,005	0	1,005	1,357	0	1,357	1,414	78	1,491	2019+: definition changed to better align with GRI 306-2	
Australia	72	143	2	71	73	5	60	65	3	85	88		
United States	0	0	0	136	136	0	0	0	0	5	5		
Germany	0	0	0	2	2	0	0	0	0	18	18		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0	0	0	0	0	0	0		
Ireland		5	4	4,781	4,785	32	49	81	2	39	42		
Recovery, including energy recovery: metric tonne	**88**	**301**	**289**	**3**	**292**	**47**	**14**	**61**	**194**	**19**	**213**		**306-2**
Canada	12	0	0	0	0	0	0	0	0	0	0		
France	0	0	0	0	0	0	0	0	0	0	0		
Netherlands	0	0	137	0	137	2	0	2	194	9	203		
Australia	0	0			0	0	0	0	0	0	0		
United States	0	0	0	0	0	0	0	0	0	0	0		
Germany	76	301	152	3	155	45	14	59	0	10	10		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0	0	0	0	0	0	0		
Ireland		0			0	0	0	0	0	0	0		
Incineration: metric tonne	**970**	**1,374**	**2,122**	**46**	**2,168**	**850**	**64**	**914**	**1,005**	**141**	**1,146**		**306-2**
Canada	0	0	0	0	0	0	0	0	0	0	0		
France	507	1,042	1,244	16	1,260	388	18	406	303	15	318		
Netherlands	463	23	573	0	573	7	0	7	528	12	540		
Australia	0	0	0	0	0	0	0	0	0	0	0		
United States	0	0	0	0	0			0	0	0	0		
Germany	0	301	152	3	155	238	4	242	95	5	100		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0	0	0	0	0	0	0		
Ireland		8	153	27	180	217	42	259	79	110	189		
Deep well injection: metric tonne	**28,691**	**51,514**	**7,272**	**77,670**	**84,942**	**9,446**	**41,496**	**50,942**	**9,345**	**93,832**	**103,177**		**306-2**
Canada	11,136	15,365	1,683	41,262	42,945	2,672	28,563	31,235	9,325	61,569	70,894		
France	0	0	0	0	0	0	0	0	0	0	0		
Netherlands	0	8,462	5,589		5,589	6,774	0	6,774	21	0	21		
Australia	0	0	0	0	0	0	0	0	0	0	0		
United States	17,554	27,687	0	36,408	36,408	0	12,933	12,933	0	32,263	32,263		
Germany	0	0	0	0	0	0	0	0	0	0	0		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0	0	0	0	0	0	0		
Ireland		0	0	0	0	0	0	0	0	0	0		
Landfill: metric tonne	**25,291**	**41,397**	**365**	**34,082**	**34,447**	**376**	**28,857**	**29,233**	**1,039**	**34,249**	**35,289**		**306-2**
Canada	23,242	35,979	222	29,175	29,397	205	28,750	28,955	540	33,892	34,432		
France	1,741	3,151	0	2,527	2,527	8	8	16	0	0	0		
Netherlands	0	0	56	0	56	5	0	5	49	0	49		
Australia	295	499	87	383	470	158	92	250	450	33	483		
United States	14	891	0	17	17	0	8	8	0	13	13		
Germany	0	0	0	1,980	1,980	0	0	0	0	311	311		
Central and Eastern Europe - Hungary and Croatia		877	0	0	0	0	0	0	0	0	0		
Ireland		0	0	0	0	0	0	0	0	0	0		
On-site storage: metric tonne	**0**	**0**	**334**	**1,405**	**1,739**	**1,587**	**1,341**	**2,928**	**1,989**	**6,659**	**8,648**		**306-2**
Canada	0	0	0	0	0	0	0	0	0	0	0		
France	0	0	0	0	0	0	0	0	0	0	0		
Netherlands	0	0	334	0	334	1,549	0	1,549	1,974	0	1,974		
Australia	0	0	0	0	0	0	0	0	0	0	0		
United States	0	0	0	1,192	1,192	0	1,341	1,341	0	6,614	6,614		
Germany	0	0	0	213	213	13	0	13	15	20	35		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0	0	0	0	0	0	0		

MATERIAL TOPIC - WASTE	2017	2018	2019			2020			2021			CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185			36,630,232			34,839,540			31,173,190		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	21,273,660	28,712,829			36,604,811			34,723,518			31,154,575	**2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU**	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819			44,708,966			42,202,207			36,865,352	**Use for intensity calculations to ensure numerator/denominator alignment**	
Ireland		0	0	0	0	25	0	25	0	25	25		
Other – Oilfield Waste Processing: metric tonne	**15,807**	**6,637**	**6,105**	**188**	**6,293**	**6,050**	**449**	**6,499**	**1,208**	**2,698**	**3,905**		**306-2**
Canada	15,569	4,783	6,105	188	6,293	6,050	192	6,242	1,208	2,698	3,905		
France	238	6	0	0	0	0	0	0	0	0	0		
Netherlands	0	0	0	0	0	0	0	0	0	0	0		
Australia	0	0	0	0	0	0	0	0	0	0	0		
United States	0	0	0	0	0	0	257	257	0	0	0		
Germany	0	0	0	0	0	0	0	0	0	0	0		
Central and Eastern Europe - Hungary and Croatia		0	0	0	0	0	0	0	0	0	0		
Ireland		1,848	0	0	0	0	0	0	0	0	0		
Weight of hazardous waste shipped internationally: metric tonne	**69**	**90**	**206**		**206**	**270**	**0**	**270**	**147**	**0**	**147**		**306-4**
Canada	0	0	0		0	0		0	0		0		
France	0	0	0		0	0		0	0		0		
Netherlands	69	69	0		0	0		0	0		0		
Australia	0	0	0		0	0		0	0		0		
United States	0	0	0		0	0		0	0		0		
Germany	0	0	0		0	0		0	0		0		
Central and Eastern Europe - Hungary and Croatia		0	0		0	0		0	0		0		
Ireland		20	206		206	270		270	147		147		
DRILL MUD AND CUTTINGS	**2017**	**2018**	**2019**			**2020**			**2021**				**OG 7**
Drill mud & cuttings produced using <u>non-aqueous</u> drilling fluid, onshore disposal to controlled sites: tonne	**7,906**	**14,970**			**14,710**			**17,184**			**12,549**		
Canada	6,800	14,212			9,311			17,184			11,881		
France	238	758			854			0			0		
Netherlands	868	0			885			0			668		
Australia	0	0			0			0			0		
United States	0	0			0			0			0		
Germany	0	0			0			0			0		
Central and Eastern Europe - Hungary and Croatia		0			3,660			0			0		
Ireland		0			0			0			0		
<u>Non-Aqueous</u> drilling fluid re-used at another location (i.e. recovered and transported invert): m3	**736**	**2,182**			**0**			**0**			**0**		
Drill mud & cuttings produced using <u>aqueous</u> drilling fluid, onshore disposal to controlled sites: tonne	**9,164**	**9,754**			**12,391**			**5,872**			**11,016**		
Canada	3,302	4,837			5,689			5,088			6,890		
France	1,741	3,148			2,527			0			0		
Netherlands	1,787	0			250			43			1167		
Australia	0	0			0			0			0		
United States	2,334	891			0			0			0		
Germany	0	0			3925			0			289		
Central and Eastern Europe - Hungary and Croatia		877			0			742			2,671		
Ireland		0.0			0			0			0		
Drill mud & cuttings produced using <u>aqueous</u> drilling fluid, disposal at Vermilion controlled location: tonne	**0**	**8,620**			**16,110**			**17,389**			**20,398**		
Canada	0	6,648			14,918			16,048			12,830		
France	0	0			0			0			0		
Netherlands	0	0			0			0			0		
Australia	0	1,972			0			0			0		
United States	0	0			1192			1,341			7,568		
Germany	0	0			0			0			0		
Central and Eastern Europe - Hungary and Croatia		0			0			0			0		
Ireland		0			0			0			0		
Sites where waste data is third-party verified													
Canada								Yes			Yes		
France								Yes			Yes		
Netherlands								Yes			Yes		
Ireland								No			Yes		
Sites where waste management is ISO 14001 certified													
Canada								Yes			Yes		
Australia								Yes			Yes		
Germany								Yes			Yes		
Ireland								Yes			Yes		
Sites where hazardous waste management is HAZWOPER certified													
Ireland								Yes			Yes		

MATERIAL TOPIC: ENVIRONMENTAL INVESTMENT & SUPPLY CHAIN	2017	2018	2019	2020	2021	CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185	36,630,232	34,839,540	31,173,190		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	21,273,660	28,712,829	36,604,811	34,723,518	31,154,575	**2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU**	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819	44,708,966	42,202,207	36,865,352	**Use for intensity calculations to ensure numerator/denominator alignment**	
INVESTMENT IN ENVIRONMENTAL PROTECTION	**2017**	**2018**	**2019**	**2020**	**2021**		
Total environmental protection investment: $CAD	**$26,884,165**	**$44,149,540**	**$55,393,529**	**$55,100,067**	**$58,357,203**		
Canada	$8,772,085	$18,136,607	$24,419,157	$22,676,290	$31,029,562		
France	$9,152,582	$10,624,294	$11,531,615	$16,830,423	$11,673,948		
Netherlands	$5,190,457	$7,683,371	$11,432,724	$8,017,014	$9,823,706		
Australia	$798,640	$787,939	$1,512,341	$2,009,973	$728,905		
United States	$2,134,901	$2,469,513	$1,050,959	$710,428	$533,852		
Germany	$835,500	$850,680	$1,013,264	$502,695	$556,673		
Central and Eastern Europe - Hungary and Croatia		$66,879	$0	$2,925	$991,806		
Ireland		$3,530,258	$4,433,469	$4,350,320	$3,018,750		
Waste disposal, emissions treatment, remediation	**$7,141,269**	**$17,138,106**	**$24,943,941**	**$25,668,622**	**$18,605,389**		
Canada	$1,251,000	$4,087,067	$9,504,433	$6,702,516	$7,014,897		
France	$2,882,023	$3,311,501	$5,560,217	$9,996,283	$5,601,357		
Netherlands	$1,085,892	$3,594,031	$4,975,903	$4,760,879	$2,391,442		
Australia	$317,802	$380,624	$392,383	$240,390	$138,168		
United States	$1,593,295	$2,094,305	$192,859	$81,722	$84,476		
Germany	$11,257	$73,440	$284,843	$75,678	$174,047		
Central and Eastern Europe - Hungary and Croatia		$66,879	$0	$2,925	$565,737		
Ireland		$3,530,258	$4,033,303	$3,808,229	$2,635,264		
Prevention and environmental management costs	**$9,716,048**	**$11,135,296**	**$14,704,369**	**$15,780,459**	**$9,503,646**		
Canada	$4,152,344	$7,151,105	$9,603,658	$8,980,255	$5,812,518		
France	$561,958	$670,348	$811,168	$1,644,063	$1,247,458		
Netherlands	$3,768,126	$2,236,031	$1,689,806	$1,788,745	$807,726		
Australia	$480,838	$407,315	$1,119,958	$1,769,583	$590,737		
United States	$448,299	$375,207	$858,100	$628,705	$259,206		
Germany	$304,483	$295,290	$221,513	$427,017	$358,098		
Central and Eastern Europe - Hungary and Croatia		$0	$0	$0	$44,418		
Ireland		$0	$400,166	$542,091	$383,486		
Discharge of Abandonment	**$10,026,848**	**$15,876,138**	**$15,745,220**	**$13,650,986**	**$30,248,169**		
Canada	$3,368,741	$6,898,435	$5,311,067	$6,993,519	$18,202,148		
France	$5,708,600	$6,642,445	$5,160,230	$5,190,078	$4,825,133		
Netherlands	$336,439	$1,853,309	$4,767,015	$1,467,390	$6,624,538		
Australia	$0	$0	$0	$0	$0		
United States	$93,308	$0	$0	$0	$190,170		
Germany	$519,760	$481,950	$506,907	$0	$24,529		
Central and Eastern Europe - Hungary and Croatia		$0	$0	$0	$381,650		
Ireland		$0	$0	$0	$0		
Fines for environmental non-compliance	**$0**	**$0**	**$0**	**$0**	**$0**		**307-1**
SUPPLY CHAIN	**2017**	**2018**	**2019**	**2020**	**2021**		
Number of new vendors that we pre-qualified using HSE criteria					**49**		
Canada					159		
France					10		

MATERIAL TOPIC: ENVIRONMENTAL INVESTMENT & SUPPLY CHAIN	2017	2018	2019	2020	2021	CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	24,827,665	31,853,185	36,630,232	34,839,540	31,173,190		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	21,273,660	28,712,829	36,604,811	34,723,518	31,154,575	**2015-2016: excludes non-op volumes from GBU & IBU; 2017: excludes non-op from IBU; 2018: excludes ~11 months non-op from IBU**	
Annual Production - Operated facility throughput including third-party volumes: boe	19,102,132	29,440,819	44,708,966	42,202,207	36,865,352	**Use for intensity calculations to ensure numerator/denominator alignment**	
Netherlands					0		
Australia					8		
United States					20		
Germany					4		
Central and Eastern Europe - Hungary and Croatia					3		
Ireland					4		
% of new vendors screened (pre-qualified using health, safety and environmental criteria)			**100**	**100**		**All new suppliers are required to be HSE pre-qualified as part of gaining access to Vermilion sites**	**S&P Global**
Canada					100		
France					100	Corresponding to new 2021 vendors working in Vermilion sites. Does not take into account material vendors.	
Netherlands					n/a	No new vendors in 2021	
Australia					100		
United States					100		
Germany					100		
Central and Eastern Europe - Hungary and Croatia					100		
Ireland					100		
Number of vendors that we qualify (new vendors), inspect and work with (existing vendors) to improve performance on HSE matters			**361**	**948**	**1,042**	**New reporting in 2019**	**S&P Global**
Canada			108	717	754	We also requested ESG information from 434 vendors, with 353 answering >50% of the questions, including on environmental, human rights, safety, workforce, culture, ethics and other ESG topics.	
France			15	70	87	Corresponding to HSE annual assessment on vendors working in Vermilion sites with HSE "Plan De Prévention". Does not take into account material vendors.	
Netherlands			10	10	10		
Australia			6	6	25		
United States			178	121	141		
Germany			38	18	6		
Central and Eastern Europe - Hungary and Croatia			2	2	15		
Ireland			4	4	4		
% of existing vendors that we inspect and work with to improve performance on HSE matters							
Canada					100		
France					37	87 existing vendors out of 235 vendors working in Vermilion sites with HSE "Plan De Prévention". Does not take into account material vendors.	
Netherlands					100		
Australia					100		
United States					100		
Germany					100		
Central and Eastern Europe - Hungary and Croatia					100		
Ireland					100		

For more information, visit sustainability.vermilionenergy.com, or email sustainability@vermilionenergy.com