



VALUES MATTER | 2020 SUSTAINABILITY REPORT
Excellence. Trust. Respect. Responsibility.

VERMILION
ENERGY



THE GLOBAL GOALS
For Sustainable Development



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Message from Vermilion Energy Inc.

This has been a year unlike any other. COVID-19 has transformed lives and businesses around the world which, along with the OPEC+ price war, has created significant pressure on the oil and gas sector.

As a responsible energy producer, Vermilion has continued to focus on what has always been most important: the health and safety of our people. We moved to working remotely for many of our staff while maintaining our field operations, which were deemed essential services in all our operating regions. This was a valuable reminder of the importance of a safe and stable local energy supply, and we are very proud of our staff's capacity to adapt and respond to the rapidly changing situation.

We also saw internal changes in the company in late May, with the appointment of co-founder Lorenzo Donadeo to Executive Chairman, and my return as President after previously serving as Chief Financial Officer between 2003 and 2018. Our first order of business, along with the Executive Committee comprised of our senior management team, was to respond to the commodity price environment. In addition to steps already taken to suspend the Company's dividend and reduce the capital program, we reinforced the company's longstanding business principles: a conservative, long-term focus on the balance sheet, including reducing our debt, along with capital discipline and a strong corporate culture. With our history of value creation and a diversified asset base with high netbacks, we believe Vermilion's value proposition remains strong.

This is also supported by our track record of sustainability, or ESG, leadership in the mid-cap energy space, reflected in our consistently strong results for the CDP Climate Change response, and our first submission into CDP Water Security this year. Sustainability is fundamental to our business, not just for responsible hydrocarbon production, but for responsible corporate operations. For Vermilion, it has always been more than that: it's what our stakeholders expect of us, and we will continue to deliver on our commitment to safe operations, community wellbeing, and the energy transition.

This year has reinforced our intention to progress our sustainability approach to the next level as we develop a comprehensive, long-term strategy that is fully integrated into the business with clear objectives, including further targets for emissions reduction. We anticipate releasing this strategy in mid-2021.

In the meantime, I would like to recognize our staff who have risen to the occasion under difficult circumstances to keep themselves, their families and their colleagues safe, and to support the continuity of our business operations. Their dedication to Vermilion's core values of Excellence, Trust, Respect and Responsibility makes a difference to the company and to our communities every day.

Curtis Hicks, President

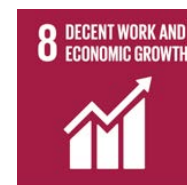
Economic & Operational Highlights

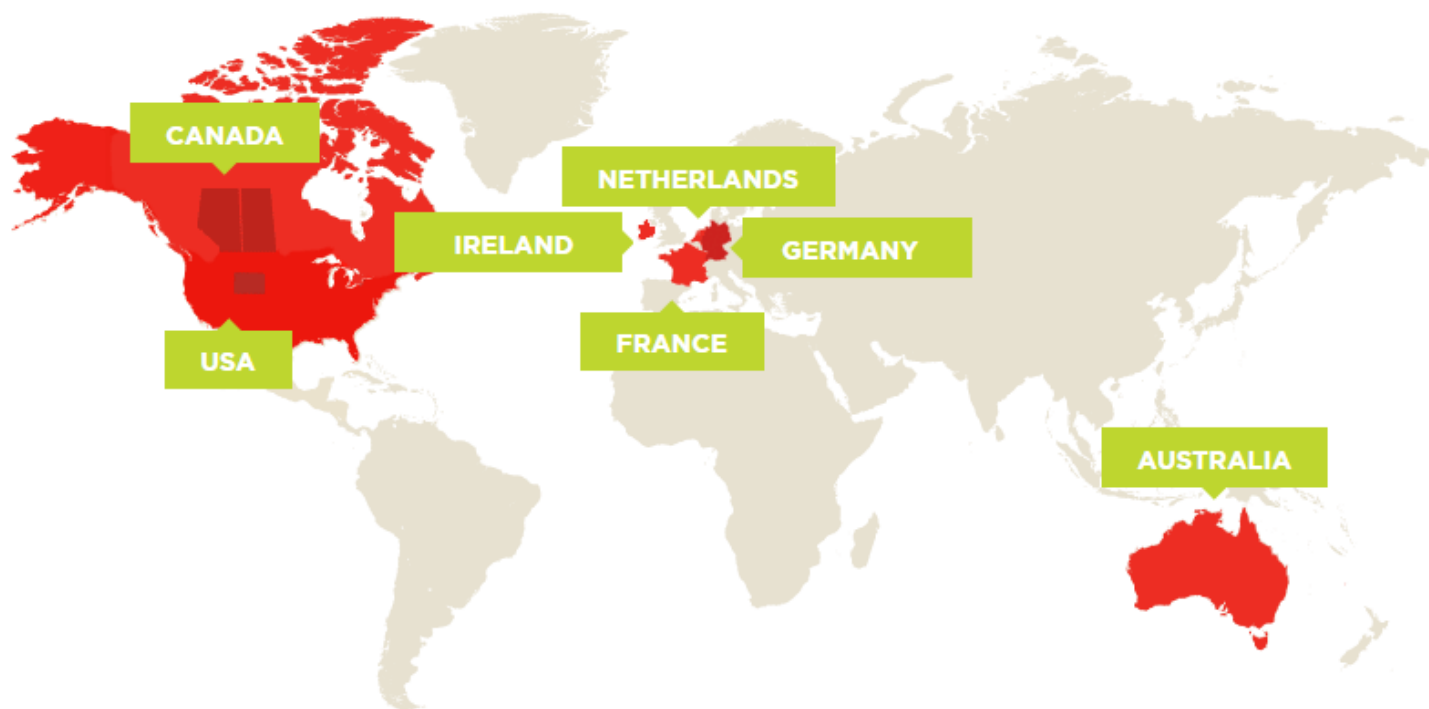
In 2019, Vermilion: 102-7, 201-1

- › Produced approximately **37 million boe** of oil and gas
- › Generated net revenue of approximately **\$1.7 billion**
- › Paid close to **\$202 million** in wages and benefits to our employees
- › Distributed more than **\$427 million** in dividends to our shareholders
- › Paid close to **\$216 million** in taxes and royalties in our operating jurisdictions
- › Invested more than **\$2.4 million** in community support
- › Devoted more than **\$55 million** to protecting our environment

8.1 Sustain per capita economic growth

We responsibly increased production (15% between 2018 and 2019) using a stable, long-term growth model. We updated our business model and growth targets in 2020 to realign with Vermilion's long-standing core business principles, which place greater emphasis on balance sheet strength and capital discipline to generate strong returns. These changes have led to an increased focus on free cash flow generation and debt reduction, while supporting our key stakeholders: investors, staff, governments, communities and suppliers.





Canada

Production	59,979 boe/d
Staff	524
Net Revenue	\$734 MM
Reserves	300,889 Mboe

The Netherlands

Production	8,274 boe/d
Staff	104
Net Revenue	\$111.4 MM
Reserves	20,980 Mboe

France

Production	10,467 boe/d
Staff	158
Net Revenue	\$282.8 MM
Reserves	59,692 Mboe

Australia

Production	5,662 boe/d
Staff	78
Net Revenue	\$184.5 MM
Reserves	13,160 Mboe

United States

Production	2,531 boe/d
Staff	38
Net Revenue	\$56.7 MM
Reserves	59,296 Mboe

Germany

Production	3,468 boe/d
Staff	49
Net Revenue	\$52 MM
Reserves	26,740 Mboe

Ireland

Production	7,762 boe/d
Staff	88
Net Revenue	\$104.3 MM
Reserves	17,774 Mboe

Note: net revenues = sales less royalties | staff = employees + contractors | reserves = proved + probable

Our Approach to Business

About Vermilion

Vermilion is a publicly traded, widely held, international energy producer that seeks to create value through the acquisition, exploration, development and optimization of producing properties in North America, Europe and Australia. Founded in 1994, we have been delivering strong financial and operational performance for more than 25 years.

At the core of our business is our purpose: we believe that producing energy for the many people and businesses around the world that rely upon it to meet their daily needs and sustain their quality of life is both a great privilege and a great responsibility.

Vermilion is part of the energy transition that is currently occurring. Our strategy focuses on reducing the environmental impacts of traditional energy production while developing renewable energy projects closely related to our core competencies. We believe that sustainability-oriented investors, governments and citizens will effect their greatest positive impact by turning to Best-In-Class operators like Vermilion during the transition.

Our Approach

Vermilion is headquartered in Calgary, Alberta, Canada, with onshore and offshore operations located around the world in regions noted for their stable, well-developed fiscal and regulatory policies related to oil and gas exploration and development.

Our approach to sustainability, and to our business in general, is to 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.

This is reflected in our recognition as a top decile performer amongst Canadian publicly listed companies in governance practices, as a 2019 Climate "A" List performer by CDP, and our frequent appearances as a Best Workplace in the Great Place to Work® Institute's annual rankings in Canada and Germany. In addition, we emphasize strategic community investment in each of our operating areas.

We believe that this approach is an integral part of our company's success, and is closely aligned with the ideals and goals expressed in the Sustainable Development Goals, which you will see us refer to throughout this report as part of our strategy.¹⁰²⁻¹⁵

In Q2 2020, Vermilion updated its business model to realign with its 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. The five core principles 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. These principles were implemented when Vermilion started paying a distribution as an energy trust in 2003 and have served the company well over its history.

Vermilion is targeting production of between 94,000 – 96,000 boe/ d in 2020, primarily through:

- Developing light oil and liquids-rich natural gas conventional resource plays in Canada and the United States
- Exploring and developing high value natural gas opportunities in The Netherlands, Germany, Ireland, Hungary, Slovakia and Croatia
- Oil drilling and workover programs in France and Australia

Vermilion's asset base comprises a diversified product and project portfolio that received premium advantage pricing. This increases the stability of our cash flows and our flexibility in allocating our exploration and development capital. The result is a consistently strong return on capital, reliable growth, and 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, such as the 50% state-owned GasTerra in The Netherlands.¹⁰²⁻⁶

Our success is made possible by the superlative efforts of more than 1000 staff (employees and contractors, as of December 2019) located throughout our operations, and through an extensive supply chain.

In 2019, our supply chain represented more than 9,000 entities and an investment from Vermilion of more than \$980 million. This encompassed 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

Management and Evaluation

Vermilion's Strategic Plan includes six key Strategic Objectives:

- Extraordinary People
- Best in Class Health, Safety and Environment
- Top Quartile Shareholder Returns
- Robust Portfolio
- Operational Excellence
- Integrated Sustainability

These objectives provide short, mid- and long term targets for the company as a whole, and for our staff. We set annual commitments within each of the objectives, and track our achievements against these quarterly, reporting to the senior management team and our Board of Directors. Progress is reported on 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, we analyze external stakeholder feedback, including external recognition (listed in detail in 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 staff.

Sourcing Our Energy

Hydrocarbon Basics

Vermilion focuses on conventional and semi-conventional exploration and development projects in Europe, North America and Australia. To be clear:

- We do not develop or produce shale oil or shale gas
- We do not use hydraulic fracturing in Australia or Europe (with the exception to date of one well in Hungary)
- Approximately 60% of our oil and gas is produced without hydraulic fracturing, and
- When we use hydraulic fracturing, it is under strict government regulation, and at depths that have not been correlated with seismic effects or groundwater contamination. In addition, our focus on semi-conventional reservoirs allows us to significantly reduce the water and sand used in our process, compared with unconventional production.

The information below explains:

- How hydrocarbons are formed
- Key differences between conventional, unconventional and semi-conventional operations, and
- How responsible use of hydraulic fracturing (fracking) in semi-conventional deposits works.

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**.

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 “traditional” or “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.

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 connected to the surface; they require additional processes or technology to bring them up.

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.

Note: 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. Vermilion does not produce shale gas or shale oil.

Semi-Conventional Reservoirs

Oil and gas can be found in reservoirs ranging that allow sufficient porosity and permeability for hydrocarbons to migrate within them, to unconventional, with low porosity and permeability (such as shale oil or shale gas, which Vermilion does not produce). 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.

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.

An example of this is the Cardium formation of 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.

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 elect to use this rock stimulation method on some semi-conventional deposits to enhance their productive capability. 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, click [here](#).

Updates

To date, 2020 has been an extremely challenging period for the oil and gas sector. Demand destruction caused by the COVID-19 pandemic resulted in unprecedented negative oil prices for the WTI benchmark as global inventories swelled. Despite these challenges, we were able to manage our business effectively, with relatively little operational impact from COVID-19. We successfully adapted our work procedures to ensure operational safety and business continuity in all of our operating regions. As we continue navigating through COVID-19, our first priority is to ensure the continued health and safety of our employees and business continuity.

In Q2 2020, we made several leadership changes in an effort to realign the Company with Vermilion's 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. The five core principles 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. These principles were implemented when Vermilion started paying a distribution as an energy trust in 2003 and have served the Company well over its history.

Our plans for the rest of this year and next will be guided by our core business principles, focusing on free cash flow generation and debt reduction rather than top-line production growth. In due course, we will review our shareholder return policy to determine the appropriate time to reinstate a dividend and/or buyback shares. We are proud to have delivered over \$40 per share in dividends to our shareholders over the past 17 years and we believe returning capital to shareholders is a key component in generating long-term shareholder returns. Although we do not expect the road ahead to be without challenges, we believe our renewed focus on these core business principles will help guide Vermilion through these difficult times and position the Company for long-term value creation.

Sustainability Vision

Our approach to sustainability, and our business in general, remains one where 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 strategies. Over time, our reporting activities are helping us to realize our sustainability vision:

As a responsible oil and gas producer, Vermilion Energy Inc. consistently delivers long-term shareholder value by operating in an economically, environmentally and socially sustainable manner that is recognized as a model in our industry.

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.

Our Sustainability Vision

As a responsible oil and gas producer, Vermilion Energy Inc. consistently delivers long-term shareholder value by operating in an economically, environmentally and socially sustainable manner that is recognized as a model in our industry.

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. In instances where these three priorities 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 [Governance](#) page.

Sustainability Policy

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.

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:

1. 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.

2. Economic Performance



- Vermilion recognizes that strong, consistent fiscal performance provides positive economic benefits for all of our stakeholders.
- We focus on generating long-term, top quartile and stable shareholder returns. Our disciplined approach, together with our technical and intellectual excellence, ensures we recognize and develop appropriate opportunities, effectively manage risks, and continuously improve operational efficiency.

3. 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.

4. 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 Everywhere, Everyday, Everyone. Our vision is that our HSE culture is recognized as a model by our industry and our stakeholders, resulting in a healthy workplace free of incidents.
- Every staff member, including management, is accountable for HSE and is actively involved in continuously delivering HSE performance improvements.

5. 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.

Company Performance – Awards and Ratings



Vermilion was one of only 193 companies globally to achieve CDP Climate "A" List recognition in 2016 and the only North American energy company on the list. Across all sectors, only three Canadian companies, including Vermilion, were awarded a position on 2016's Climate "A" List. In 2019, 2018 and 2017, Vermilion was recognized with a Leadership Level rating of A-. In 2019, we were one of only two Canadian oil and gas companies to receive this designation, and ranked in the top 6% of oil and gas companies globally.



In June 2020, Vermilion received a rating of "AA" on a scale of AAA (leader) to CCC (laggard) in the MSCI ESG Ratings(2) assessment, which reflects exposure to industry-specific ESG risks and the ability to manage those risks. This consistent rating from 2019 continues to reflect Vermilion's commitment to improving company ESG performance and enhanced disclosure on topics relevant to MSCI's detailed assessment process.*



In 2020, Vermilion received ISS decile QualityScores of "1" for Environment and Social disclosures and transparency, ranking at the top of our peer group.

We were also recognized for excellence in managing governance risk with a decile score of "4" for Governance practices. ISS QualityScore is a scoring solution supported by data on board structure, compensation, shareholder rights and audit, designed to help institutional investors identify governance risk within portfolio companies.



In 2020, 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 were recognized by the **Great Place to Work Institute®**



We have been recognized annually for excellence in governance practices as part of the Globe and Mail annual **Board Games** survey since 2006. In 2019, Vermilion governance practices resulted in a rank of 4th among oil and gas companies in Canada.



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



Year-over-year recognized 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.



Vermilion ranked 11th in the 2018 Corporate Knights Future 40, which showcases the environmental, social, economic and governance performance of Canada's emerging corporate sustainability leaders. This is our fifth consecutive appearance on the list, and we are also the highest ranked oil and gas company in the ranking. Note that 2018 was the final year for this ranking.



WINNER OF THE 2015 EPAC AWARD FOR

Top International Producer

Recognized by EPAC as the 2014 Top Canadian-Based International Producer. Evaluated on seven financial and operating performance benchmarks (75% of score), including: Total return, Production growth per debt-adjusted share, Corporate cash margin, Proved-plus-probable reserves growth per debt-adjusted share, Proved-plus-probable FD&A costs per boe (including future development capital), Recycle ratio. Remaining 25% of score was based on industry leadership and corporate culture, including HSE, community investment, innovation, training, and other sustainability-related programs.

* The use by Vermilion Energy Inc of any MSCI ESG Research LLC or its affiliates ("MSCI") data, and the use of 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.

External Associations and Initiatives

Vermilion's sustainability approach is also guided by our participation in external initiatives and associations.

We are aware that trade and industry associations 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; if there are discrepancies between the organization's position and our company approach, we would engage with the association.

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

With specific regard to regulations dealing with the Paris Agreement and climate change, 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 best-in-class traditional energy producers such as Vermilion to continue to operate in an environmentally and socially responsible manner. We also 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, and for its compliance with stringent safety, environmental and workplace regulations.

Voluntary External Initiative ¹⁰²⁻¹²	INITIATIVE DETAILS
Carbon Disclosure Project	Vermilion has voluntarily filed Climate Change Responses with CDP since 2014; Vermilion was the first Canadian energy company to achieve the top score of 100, was named to the Climate A List in 2016 and received an A- in 2017, 2018 and 2019. Stakeholders include a wide range of sustainability and environmental non-governmental associations, in addition to investors, governments, businesses and cities.
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.
SAM Corporate Sustainability Assessment	Vermilion began voluntarily reporting into the CSA in 2017, achieving a top quartile ranking for the oil and gas sector in 2017, 2018 and 2019. SAM is an investment specialist focused exclusively on sustainability investing, and holds memberships in a range of responsible finance and investment organizations.
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.
Ambès Regional Water Basin Committee	Our Ambès 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.

Association Membership 102-13	Association DETAILS
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, 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.
Budapest Chamber of Commerce and Industry	The 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. Vermilion renewed its membership in CAPP in 2018.
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.
French FAB	An organization to promote French industry.
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.
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 the only 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.
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.

About Our Report

Our 2020 Sustainability Report is Vermilion's seventh report on how we manage economic, environmental, social and governance (EESG) factors, including impacts, risks and opportunities.

We have previously produced an online report that was updated once annually, with printable long- and short-form PDFs in our key languages.

With our 2017 report, we changed our format to one that will be updated online through the year. We augment this as needed with a short highlights summary in key languages when the annual Performance Metrics cycle is complete each year. ¹⁰²⁻⁴⁹

This reporting approach establishes key areas of discussion for each of Vermilion's nine identified Material Topics under the GRI Universal and Topic-Specific Standards:

- 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.

Our goal is to streamline our annual reporting, allowing us to focus on updates to activities while maintaining the robust discussions needed under various reporting frameworks.

We continue to use the GRI Standards to guide our sustainability reporting, as the Global Reporting Initiative remains the leading framework for EESG reporting. We have prepared this report in accordance with the GRI Standards: comprehensive option, and incorporates GRI's 10 key Reporting Principles for defining report content and quality.¹⁰²⁻⁴⁹

We note increasing external stakeholder pressure to expand issues of materiality beyond what we have identified. To aid sustainability and ESG analysts in this regard, we have expanded our GRI Content Index to include alignment with the SDGs, CDP, UN Global Compact, SAM, the EU Directive on Non-Financial Disclosures, the Task Force on Climate-Related Disclosures, and the Sustainability Accounting Standards Board alignment.

We urge all ESG analyst and reporting organizations to focus their efforts on aligning reporting requirements beyond their own standards, in the spirit of SDG 17 to aid transparency while recognizing the increasing reporting burden on companies, particularly on small- and medium-sized enterprises.

This report covers Vermilion's operated business units, including Canada (CBU), France (FBU), Netherlands (NBU), Germany (GBU), Ireland (IBU), Central and Eastern Europe Business Unit (CEE), Australia (ABU) and U.S. (USBU).

Where updates of previously reported information were required, they are noted in our Performance Metrics document. ¹⁰²⁻⁴⁸

Previous Reports

Report Title	Performance Metrics Included
2020 Sustainability Report	2012-2019
2019 Sustainability Report	2012-2018
2018 Sustainability Report	2012-2017
2017 Sustainability Report	2012-2016
2016 Sustainability Report (report title renumbered to publication year rather than Performance Metrics year)	2012-2015
2014 Sustainability Report	2012-2014
2013 Sustainability Report	2012-2013

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. We believe that our contributions to the value chain create wealth for global citizens, providing the wherewithal for environmental protection and helping raise many of our fellow global citizens out of poverty. 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 process, from exploration, to drilling and completions, to traditional and geothermal energy reclamation.	How we extract oil, gas, associated byproducts, and geothermal heat from our operating properties, through the lifecycle from drilling & completion to production, and 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 constitute our customers, the manufacturers and consumers who use the resulting products, and the agricultural producers and non-profit organizations who benefit from our 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
<ul style="list-style-type: none"> > Communities > Government > Investors > Partners > NGOs 	<ul style="list-style-type: none"> > Suppliers > Employees > Investors > Communities 	<ul style="list-style-type: none"> > Communities > Investors > Employees > Partners > Government > NGOs > Media 	<ul style="list-style-type: none"> > Communities > Partners > Customers/end users > Investors > Government > NGOs > Media 	<ul style="list-style-type: none"> > 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
<ul style="list-style-type: none"> ➤ Safety ➤ Environment ➤ Community relations ➤ Regulation ➤ Governance 	<ul style="list-style-type: none"> ➤ Safety ➤ Environment ➤ Efficiency ➤ Supply chain management 	<ul style="list-style-type: none"> ➤ Safety ➤ Environment, including GHG emissions ➤ Community / government relations ➤ Staff relations ➤ Efficiency 	<ul style="list-style-type: none"> ➤ Transport safety ➤ GHG emissions ➤ Spills ➤ Ethics ➤ Stable supply 	<ul style="list-style-type: none"> ➤ Safety ➤ Stable supply ➤ GHG emissions ➤ Cost ➤ Regulation

Stakeholder Engagement

We continue to regard our people, communities, investors, governments and regulators, and partners and suppliers as 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} In 2017, for example, as a result of our external stakeholder engagement, and the increasing importance of changes to regulatory frameworks and legislation in our operating areas, we added Government (including regulators) as a key stakeholder.



Our robust strategy for managing our economic, environmental and social performance reflects the respect we have for our key stakeholders. These groups influence our business and operations in important ways, including through the provision of capital to fund our activities, the provision of licenses for exploration and production, and the setting of expectations regarding safety and environmental performance. Meeting these expectations is the key to maintaining and growing our social license to operate, and we therefore engage with these stakeholders on a regular and ongoing basis.¹⁰²⁻¹⁰²⁻⁴³

Over the past several years, we have developed our external stakeholder engagement program to reflect the importance of community and government support. We manage this on a business unit-specific basis. This includes Public and Government Relations staff in France, The Netherlands, Ireland, Germany, and Central and Eastern Europe, and a regulatory specialist in the United States. In Canada, our Land department plays a key role in community and Indigenous Peoples relations. In Australia, we have engaged external stakeholders as part of our Safety Case and Environment Plan, and through our leadership of the **Oiled Wildlife Response** project, which brought universities, industry partners, suppliers and government together to improve wildlife protection.

While external stakeholder engagement is guided by regulations in some of these cases, our approach is to proactively communicate in all cases 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. In the near term, for example, Vermilion will continue to evaluate and prioritize the exploration opportunities available on our land base. As we complete these assessments, we will present exploration activity plans to partners, government and regulatory authorities, and public and community stakeholders. These plans will reflect our efforts to minimize the environmental and social impact of our activities. As environmental impact assessments are a critical element of the acceptance and permitting process, Vermilion will ensure that they are conducted in the most

rigorous manner feasible.

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

Current & potential investors



Engagement Channels	Topics Related	Response
<ul style="list-style-type: none"> > Annual General Meeting and webcast, distribution of financial statements & proxy statement > Annual benchmarking against peers through Globe and Mail Board Games > Business updates, analyst conference calls > Ongoing presentations to investor and industry conferences, with webcasts on external Vermilion website and intranet > Ongoing monitoring of and response to investor relations e-mail and phone inquiries > Ongoing monitoring of and response to social media including LinkedIn and Twitter > Media monitoring/ media appearances > News releases > Responses to sustainability-related queries from, and engagement with, socially responsible investment agencies and shareholders, many of whom are signatories to the UN's Principles for Responsible Investment 	<ul style="list-style-type: none"> > Financial results > Increasing emphasis on transparency and sustainability reporting > Recommendations from the Task Force on Climate-Related Financial Disclosures and the Sustainability Accounting Standards Board 	<ul style="list-style-type: none"> > Ongoing communication of material issues and results > Confidential industry benchmarking project for CDP reporting > CDP Climate Change Response > Sustainability report > Response to requests for interviews and other input > Reviews of evaluations by socially responsible rating agencies, including corrections, responses and engagement > Changes to sustainability reporting > Input into business strategy

Employees



Engagement Channels	Topics Related	Response
<ul style="list-style-type: none"> ➤ Annual 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 ➤ Global town halls, with executive question-and-answer sessions based on questions submitted anonymously in advance, or from the floor of the meeting ➤ Additional confidential staff surveys on topics such as HSE (Perceptions survey), compensation and strategic community investment (choices of non-profit partners, activities, etc.) ➤ Additional town halls in each of our business units with leadership question-and-answer sessions ➤ New employee breakfasts and lunches, as needed ➤ Vermilion 101 – Introduction to Oil & Gas for new staff, as needed ➤ Whistleblower policy, 24/7 (referred to internally as “Reporting of Inappropriate Activity”) 	<ul style="list-style-type: none"> ➤ Strategic direction of the company ➤ Employee engagement and satisfaction ➤ Communication (internal and external) of strategic community investment program ➤ Clear communication and implementation of HSE program 	<ul style="list-style-type: none"> ➤ Executive response to town hall suggestions and questions ➤ Implementation of suggestions from staff working groups ➤ Implementation of Fair Culture Policy in all business units

Partners & Suppliers



Engagement Channels	Topics Related	Response
<ul style="list-style-type: none"> ➤ HSE Pre-qualification screening and auditing of operations to ensure compliance ➤ Safety meetings, including both Vermilion staff and our contractors and partners ➤ Briefings from Vermilion staff on expected standards of behavior, including our Code of Business Conduct and our Anti-Discrimination and Harassment Policy ➤ 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 	<ul style="list-style-type: none"> ➤ HSE performance ➤ Access to opportunities ➤ Production and financial results 	<ul style="list-style-type: none"> ➤ Development of HSE High Five personal safety initiative ➤ Focus on operational excellence ➤ RFPs and invitations to bid

Communities



Engagement Channels	Topics Related	Response
<ul style="list-style-type: none"> ➤ Stakeholder engagement programs, including proactive communications (letters, town halls, open houses, visitor centres, surveys, etc.) to provide information and gather feedback ➤ Meetings, phone calls, e-mails with landowners, as needed 	<ul style="list-style-type: none"> ➤ Community support and capacity building ➤ Public safety ➤ Environmental stewardship 	<ul style="list-style-type: none"> ➤ 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 ➤ Discussions with local communities regarding impacts and potential partnerships

<ul style="list-style-type: none"> ➤ Contract negotiation with landowners, as needed ➤ Ongoing partnerships with key social agencies ➤ Meetings, e-mail, phone calls with other local social agencies & councils, ongoing ➤ Customized community investment program for each location, ongoing ➤ Communication of community investment via external website & LinkedIn, ongoing ➤ Engagement with Indigenous Peoples communities, including provision for consultation, free, prior and informed consent, business opportunities and community investment OG-9, DMA Social 		<ul style="list-style-type: none"> ➤ Increased engagement with Indigenous Peoples communities, including business opportunities and community investment ➤ Implementation of online community investment applications to streamline process for community groups
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Governments AND REGULATORS



Engagement Channels	Topics Related	Response
<ul style="list-style-type: none"> ➤ Regulatory requirements in all of our locations ➤ Meetings, phone calls, conferences with government officials, ongoing ➤ Government-Industry working groups 	<ul style="list-style-type: none"> ➤ Compliance ➤ Technical expertise ➤ Economic and community development 	<ul style="list-style-type: none"> ➤ Compliance with or exceeding all regulatory requirements ➤ Audits and inspections to confirm compliance ➤ Proactive community investment and sustainability programs ➤ Alignment of sustainability strategy with SDGs

NGOs: industry, environment, social



Engagement Channels	Topics Related	Response
<ul style="list-style-type: none"> ➤ Ongoing participation in industry meetings and conferences ➤ High-level review of NGO positions and topics ➤ Meetings with NGO representatives 	<ul style="list-style-type: none"> ➤ Increasing transparency and communication of sustainability performance ➤ Environmental concerns and performance based on location, location (see our Environment section) 	<ul style="list-style-type: none"> ➤ Annual CDP submission and engagement ➤ Alignment of sustainability strategy with UN SDGs ➤ Active engagement with socially responsible rating agencies, including CDP, Sustainalytics, MSCI, Vigeo-Eiris, ISS and SAM ➤ Focus on operational excellence, including compliance with or exceeding all regulations ➤ Use of feedback in developing internal environmental and social programs

Identifying Issues

To identify and review the topics relevant to our sustainability strategy and its integration within the business, we begin by reviewing the issues we originally identified when we began the reporting process in 2013, and those that we have added since based on stakeholder engagement and recommendations, including: 102-15, 102-46

- 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
- Recommendations from sector-related government, regulatory and industry bodies, including the Canadian Association of Petroleum Producers, Extractive Industries Transparency Initiative, climate-related programs from regional and federal governments where we operate, and European Union Directive 2014/95/EU
- Published research and analysis from reporting entities such as GRI, CDP, the International Integrated Reporting Council, Sustainability Accounting Standards Board and The Task Force on Climate-Related Financial Disclosures
- Reports and benchmarking from third parties with insight into the area and socially responsible investment analysts, including Deloitte, Ernst & Young, KPMG, ISS, Sustainalytics, AccountAbility, MSCI, Vigeo-Eiris, Bloomberg, SHARE, SAM (Dow Jones Sustainability Index), FTSE4GOOD and Corporate Knights Capital
- Sustainability/corporate responsibility reports from sector-leading companies
- Media scans

We then analyze issues that Vermilion identifies as important to the company, using such sources as annual reports, risk matrices, employee surveys and internal policies and procedures. By further examining our value chain, including our stakeholder engagement results such as community feedback, we add issues that are important to the people and locations upon which our operations have an impact.

Once we have reviewed these issues, we provide key internal stakeholders, including the senior management team in all business units, with opportunities to provide their feedback on these original topics as well as any new topics for consideration in this report. 102-46 102-47 103-1,

We also reflect on the disclosure requirements and EESG topics contained within other sustainability reporting frameworks, as well as the sustainability reports and disclosure activities by our peers. Finally, we review and reflect on the feedback that we have received from SRI and other sustainability-related organizations, and incorporate this feedback to strengthen our disclosure and performance on the sustainability topics that matter most to Vermilion and our key stakeholders.

Material Issues

The issues identified for this report have been cross-referenced to the GRI Standards, along with topic boundaries. A Boundary Assessment for each issue determined that the outcomes of the original assessment have not changed as to its relevance to Vermilion or the stakeholders throughout our value chain.¹⁰²⁻⁴⁹

For each issue, we have reevaluated whether they were of high, medium or low impact on Vermilion, and high, medium or low impact from the perspective of our key stakeholder groups. As a result, we have adjusted our materiality matrix, reflecting an increased importance of regulatory frameworks and community support, for example, and an increasing focus on water management, biodiversity and supply chain risk.

We use the following parameters to assess the level of impact on Vermilion:

High	Medium	Low
<ul style="list-style-type: none"> › Critical or immediate (12-month) risk to health & safety, environmental management, 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 	<ul style="list-style-type: none"> › Important but not critical risk; risk may be mid-term (1-3 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 	<ul style="list-style-type: none"> › Small or no risk; risk may be longer term (3-10 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

We use a similar approach to assessing potential impact of these issues on stakeholders. We analyze our engagement results with different groups of stakeholders, to identify issues and rate their importance reflecting the critical/high, important/medium, and small/low definitions from the table above. We also take into consideration how directly affected the stakeholders were (for example, employees and fenceline communities are more directly affected by Vermilion's operations than NGOs). We then integrate those results to identify where issues had a common impact or concern spanning several key stakeholder groups.^{102-46 102-47}

The resulting summary of all GRI Aspects is contained in our full [GRI Materiality Analysis](#), which you can find in our additional information.^{102-47 103-1}



Validation & Review

Our materiality analysis was reviewed by a GRI-trained professional internal to Vermilion, who also holds the Sustainability Accounting Standards Board FSA Credential. The analysis has also been reviewed and validated by Vermilion's senior management team.

We use engagement with sustainability and socially responsible investment analysts on an ongoing basis to support our alignment with GRI Guidelines and best practices, and our focus on continuous improvement. This includes such critical issues as governance, climate change, science-based target setting, and environmental metrics reporting.

Portions of the data contained in this report were independently audited or verified by the following organizations: LBG Canada (2012-2016), GLJ Petroleum Consultants and Deloitte (as noted in our GRI Content Index document). In addition, the environmental metrics included from our CDP submission are externally verified under ISO 14064-3.102-56

Abbreviations & Terms

In this report, we refer to Vermilion Energy Inc. as "Vermilion", the "company", "we" or "our".

Term/Abbreviation	Definition
ABU	Australia Business Unit
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 one boe for six mcf of natural gas)
boe/d	barrel of oil equivalent per day
CBU	Canada Business Unit
CEE BU	Central and Eastern Europe Business Unit
CDP	Carbon Disclosure Project
CO ₂ e	carbon dioxide equivalents
EESG	Economic, Environmental, Social and Governance Impacts
FBU	France Business Unit
GBU	German Business Unit
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
NBU	Netherlands Business Unit
NGLs	natural gas liquids
PPE	Personal Protective Equipment
USBV	United States Business Unit

Our Approach to Governance

Vermilion has reported publicly on climate risks and opportunities via our **CDP submissions** since 2014, with data back to 2012.

Board Oversight:

Integrated Sustainability is an important component of our long-range business plan because sustainability impacts every business unit, department and employee. The Board has responsibility for oversight of Vermilion's sustainability performance, with Board committees providing additional sustainability-related expertise in their areas of focus; in particular, the GHR Committee, the Audit Committee and the HSE Committee.

The Board established a Sustainability Committee comprised of independent directors, to provide additional advice for the oversight of Vermilion's approach, including:

- our Sustainability Policy and long-range strategic plan;
- sustainability performance, and progress on sustainability related goals;
- identification and management of sustainability-related risks and opportunities;
- impact of climate-related issues on business strategy, budgets and risk management; and
- communication of sustainability policies and performance.

The Board reviews sustainability performance reports quarterly, which include ESG performance, sustainability activities, environmental and social trends, and strategic community investment activities. In 2019, the Board also received briefings on sustainability from business unit leaders, visited field sites in Canada, Ireland and France, met with stakeholder representatives, and augmented these sustainability insights 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 Board and the Sustainability Committee use this information to ensure the integration of sustainability and climate-related risks within our enterprise risk management system, to better inform decisions on business strategy and risk mitigation, and to provide direction on policy and strategy.

Management Role

Organizational responsibility for sustainability and climate-related issues flows from the Board and its Sustainability Committee throughout the Company via our Executive Committee. This comprises the Executive Chair, President, Chief Financial Officer, EVP People & Culture, VP Business Development, VP International & HSE, VP North America, and VP European Operations.

Our Director, Sustainability reports monthly to the Executive Committee, and is focused on developing and implementing sustainability strategy, working in partnership with corporate teams and business units to ensure that our strategy and reporting reflect Vermilion's goals as a company overall and for each region.

Our VP, North America and our VP, International & HSE lead the operationalization of sustainability, with the Managing Directors of each business unit responsible for sustainability activities, including managing climate-related risks and opportunities within their organizations. Each of our business units has also identified a Sustainability Lead, to support sustainability-related work.

Our corporate sustainability team provides a centre of excellence approach, advising the business on all aspects of sustainability, including environmental, climate and social trends, and reporting quarterly to the Board and the Sustainability Committee regarding progress. The corporate team is also responsible for external sustainability reporting.

Various departments within the Company report sustainability-related priorities and progress quarterly to either the full Board or Board committees, including governance updates, HSE targets and performance, and public and government relations.

Our Approach to Strategy

Best in Class Health, Safety and Environment and *Integrated Sustainability* are two of Vermilion's six key strategic objectives, resulting in environmental considerations being engrained in all portions of our business. This provides corporate direction for programs that have the potential to enhance our performance and operational efficacy. The progress of these objectives is tracked on a monthly, quarterly and annual basis and shared across all levels of staff (Office staff, Field staff, management, senior management, etc.).

The decision in 2015 to establish Integrated Sustainability as a strategic objective supported previous alterations to our project management framework (site specific and play development level) to enhance aspects of sustainability and climate change (regulatory change, enhanced water management, emissions reduction, footprint reduction / ecosystem fragmentation minimization). This has a direct impact on our long term sustainability strategy. The aspects of climate change that influence our sustainability strategy include, but are not limited to:²⁰¹⁻²

- physical changes resulting from temperature change
- regulatory changes
- the need to adapt our operations to potential changing climate extremes, and
- the identification of green solutions in the communities where we live and work.

We are committed to reducing the impact our operations have, beginning with being compliant in all regulatory regimes, across all business units, while providing long-term growth and income to our investors. These are primary drivers for identification and implementation of climate change initiatives such as emission reductions and fuel efficiency.

Sustainability initiatives are assessed on a project-specific basis, including aspects such as the benefit to the communities where we operate, the benefit to the environment (reduced carbon emissions or fuel consumption, carbon offset, water reduction / reuse, etc.), and financial considerations.

Vermilion emphasizes projects that will have a positive, lasting impact both short term and long term. We leverage our successes to inform initiatives that are in the assessment, planning or initial implementation stages. Examples include (see our [Environment section](#) for further details):

- The cogeneration project in Vermilion's Parentis operation in France. Vermilion captures waste heat from our produced water stream to heat a local 15-hectare greenhouse that produces more than 6,000 tonnes of fresh tomatoes annually. This project was selected by the French Minister of Economy to be the recipient of the 2013 Circular Economy Award for Industrial and Regional Ecology, has been leveraged in an industry-wide research document and has now led to another geothermal project, focusing on eco-housing.
- We have identified several other potential geothermal projects that are in the assessment phase that will provide a low carbon energy option as a direct result of our operations and infrastructure. These types of

projects have the potential to offset the financial impacts associated with the price of carbon, while providing either Vermilion or a third party with the ability to reduce emissions.

- Constructing Vermilion's corporate head office to the Leadership in Energy and Environmental Design (LEED) Gold standard. LEED® certification is a structured, audited process that assists design teams in aligning building construction and intent of "green" or high performance design.
- Adjusting long term operating strategies to ensure efficient and effective resource development. An example of this is the reduction of fresh water use in France (18% from 2015 to 2016).

In 2019, the Board of Directors, executive team and senior management, including the managing directors of our business units, participated in a robust scenario analysis, examining two key scenarios from the World Economic Forum that bring together the work of significant contributors in this area, from the International Energy Agency to Carbon Tracker. These scenarios compare a Gradual and a Rapid transition to low carbon, with the latter meeting the aims of the Paris Agreement to limit global temperature increases to 1.5°C to 2 °C, with 1.5 °C preferred. This provided an opportunity to assess the key factors impacting the speed of the energy transition, including the influence of new energy technologies, the potential speed of adoption of these technologies, the anticipated changes in policy and regulation surrounding the energy transition and their rate of change, and emerging market pathways such as India. The scenario analysis extended to the risks and opportunities related to these climate-related factors, the resulting impacts on the company's future not just in the short-term, but in the medium to long term (2050+), and strategies for Company resilience – overall and by business unit. A review of the results of this analysis is underway, and will inform our continuing work on updating our sustainability strategy through 2020, including our current climate-related emission reduction targets.

Overall, our strategy to address the impact of these risks, and ensure our resilience under various scenarios, focuses on the following:

- Lower carbon fuels. Since 2012, we have shifted our production mix towards natural gas, as a cleaner burning fuel than other fossil fuels, and we continue to focus on reducing the carbon intensity of the oil and gas that we produce. This includes producing fuel that is used within the country of production wherever possible, reducing the carbon footprint associated with transportation of the fuel to consumers, and to increased national energy security.
- Greater energy efficiency. Many energy-and operational efficiency initiatives go hand-in-hand, which in turn helps us to 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. Our emissions reduction initiatives have resulted in Vermilion having a top quartile emissions intensity (emission rate per BOE produced) compared to our peer group.
- Socially responsible fuels. We are committed to ensuring that our fuels are produced in the most environmentally and socially responsible manner possible, 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 framework of health, safety, environmental and human rights legislation.
- Renewable energy. We are continuing to pilot the production of renewable energy, including geothermal energy, for which our internal expertise in engineering, geoscience and drilling is particularly well suited. This work has begun with a focus on 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 other areas, including biogas and the conversion of traditional oil and gas assets to geothermal production.
- Transparency and reporting. We have established a strong record of reporting on greenhouse gas emissions, energy usage and other key environmental metrics. This data is helping us to understand our opportunities for improvement, and we will continue to use it to determine emissions and energy reduction targets.

Climate-Related Risk Management

The Board has responsibility for reviewing all risks, including climate related, and their implications for our business strategy. Our executive team is responsible for the review and management of the Enterprise Risk Management process. These form an integral part of decision making and are documented and regularly reviewed, with appropriate action taken to manage risks to a level as low as reasonably practicable. For each risk case, our technical teams, business unit leadership, executive team and Board of Directors (depending on the risk case) assess the scope and materiality of the risk. These reviews include an assessment of the integrated nature of many risks that span more than one risk category. These assessments feed into our Corporate Risk Register, which provides a consistent framework to ensure the effective tracking of all of our material risks, communication of our risks throughout the organization, and the mitigation plans associated with reducing their impact.

Sustainability-related risks and opportunities, including those related to climate, are identified by key staff across our Company, including our Health, Safety and Environment team, Sustainability team, Government and Public Relations teams, and our business unit leaders. All of these employees have significant experience in their fields, and use a wide array of inputs to inform their analysis. These include research reports, external stakeholder organizations, government policy and regulation discussions, industry initiatives, communities and landowners, and global non-governmental entities.

As part of our ongoing cycle of risk identification, every business unit and corporate team assesses their risk cases to determine where sustainability and/or climate-related risk is a contributing factor. These are incorporated into the Corporate Risk Register Review, and provided to the Sustainability, HSE, Audit, and GHR Committees as appropriate, including projected timelines and the mitigation or opportunity measures related to them. This process formalizes identification and assessment of sustainability and climate-related risks and integrates them into the overall Enterprise Risk Management system, supporting the Board's oversight of both climate-related risks and business sustainability.

In 2019, we also integrated our sustainability materiality analysis (incorporating issues with impact for both the Company and our key stakeholders, with generally wider ranging issues than solely financial materiality) into our Enterprise Risk Management process and Corporate Risk Register through discussions with each of our business unit leaders, and through a collaboration between our Finance, HSE and Sustainability teams.

We have also developed a Carbon Liability Assessment Tool to support climate risk identification and management, with Scope 1 emissions quantification information and regulatory information for each business unit. We assessed the price of carbon on both a realized cost and shadow pricing basis, and have identified likely carbon pricing scenarios for all areas under our operational control. The Tool provides a screening-level overview of Vermilion's exposure to this emerging financial risk factor. It also provides the basis for developing carbon liability risk cases for all business units in 2020, supports ongoing identification of carbon opportunities, and supports activities such as business development, taxation review and marginal abatement cost curve preparation.

Risks and opportunities are prioritized based on impact to the environment as well as monetary implications of identified climate change risks and potential project opportunities. Based on this information as well as

business need, projects are prioritized in a manner that allows Vermilion to support healthy communities as well as augment our strong shareholder value.

Depending upon the business unit, risks cover such areas as regulatory changes, carbon pricing and taxes, community support, rising sea levels, increased severity of tropical storms, temperature increases, and potential for increased natural disasters.

Vermilion has undertaken a GHG Quantification Methodologies study and completed a global Carbon Liability Analysis for all Business Units (BU); this project is annually reviewed by Vermilion staff, and is undergoing a completely new analysis in 2017. The Carbon Liability Analysis factors in a number of potential regulatory, price point and taxation changes that are possible over the next several years. These documents detail the current emission generating activities (Scope 1, 2, 3) and details the liability and risk associated with the carbon footprint of operations in each BU. The types of emissions considered in this quantification survey include NO_x, SO_x, VOC, H₂S, PM, BTEX, CO₂, CH₄, N₂O, PFC, HFC, and SF₆. Vermilion completes fugitive emission assessments annually at select locations in Canada, France and The Netherlands.

Scenario planning: At a minimum, on an annual basis, and more frequently when required (such as daily during cyclone season), Vermilion examines and reassesses the risk associated with climate change and the potential effects on operations globally. This review considers the potential impact of a 2 °C scenario, with these impacts included in our risk assessment process, including:

- Changes in temperature extremes
- Changes in precipitation extremes and droughts
- Sea level rise
- Tropical cyclones (hurricanes and typhoons)
- Carbon taxation
- Carbon sequestration requirements
- Emission reporting obligations
- Product efficiency regulations and standards
- Uncertainty surrounding new regulation
- Reputation, and
- Changing consumer behaviour

The results annually feed back into our risk/opportunity management process to ensure Vermilion has a sound data foundation to support responsible decisions in our operating areas. Detailed analysis of these risks, including potential impact, financial implications, management methods and cost of management, can be found in our annual CDP submission. Vermilion also proactively conducts operational and engineering reviews aimed at increasing efficiency, reducing emissions and monetary expenditure requirements at major facilities, which has resulted in the identification of a large number of opportunities.

Carbon pricing: The primary challenge associated with carbon pricing encountered is the rapidly changing geopolitical landscape, which has a direct impact on regulation and taxation schemes. As these have the potential for rapid change to the price of carbon, Vermilion assesses the price of carbon on both a realized cost perspective as well as shadow pricing, and has identified likely carbon pricing scenarios for all of our operations. This work pertains to Scope 1 and 2, and is applicable to Scope 3 emissions, as these emissions have the potential to be impacted by an economy-wide carbon tax, such as the tax in Alberta.

- Vermilion currently considers the reasonable price for carbon in the short term (1-2 years) impacting our Canadian operations to be \$30 per tCO₂e. This is based on the commitments made by the Alberta government relating to the economy-wide tax in place.
- In our European operations in the near and long term, we believe that a carbon price of 20-30 € per tCO₂e, which aligns with the French government assertions relating to a floor on carbon pricing, is also reasonable for our Netherlands and German assets. This is subject to update as a result of 2017 changes in government and legislation.
- For our Australian operations, though we are not being impacted by carbon taxation, we believe the previously asserted cost of \$20 per tCO₂e to be reasonable.
- Based on assertions made by the USA government, we do not believe our operations will be impacted by carbon pricing in the form of taxation; however, we consider \$20 USD per tCO₂e to be reasonable from a planning perspective.

The determination of carbon pricing currently resides with our Corporate HSE group. The process for determining pricing includes a review of current pricing assertions by governments and a review of published research relating to the Paris Agreements and potential carbon price requirements.

Our Targets & Metrics

Our sustainability reporting highlights the increasingly sophisticated and streamlined data collection process we are using internally, and continues to provide a platform to assess current levels, trending and comparisons to industry peers. Our **Performance Metrics** include significant economic, environmental, social and governance measures, and are reported in accordance with the comprehensive option of the Global Reporting Initiative's Standards.

Climate-related metrics include but are not limited to:

- energy consumption and intensity;
- greenhouse gas emission and intensity (Scopes 1, 2 and 3), externally verified under ISO 14064-3;
- investment in renewable energy;
- flaring and venting volumes; and
- water withdrawals.

We use these and other metrics in several key ways to monitor our progress, including:

- measurement against our established targets, which can be found in our Sustainability Report, on our website at www.vermilionenergy.com (under the heading "Our Responsibility");
- performance benchmarking against our peer group; and
- performance benchmarking against recommendations from industry and third-party entities (e.g. ESG agencies).

Climate-related performance feeds into our Corporate performance scorecards (STIP and LTIP Scorecards), which are used to assess overall corporate results and are major drivers in determining short and long-term incentives (bonus and share awards). Potential bonus is available to reward employees for personal contributions and achievement of organizational objectives. Environmental performance and performance against our peer group is a weighted component in annual bonus calculation and compensation reviews. Potential long term incentives are available to reward employees for achievement of long-term corporate objectives, promote sustained increases in shareholder value and drive achievement of long-term strategy. Performance against project goals and outcomes therefore impacts each employee's total compensation, including Vermilion's Executive Team.


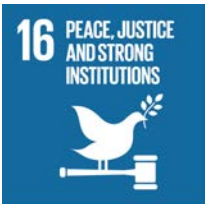
Current Targets

Details provided in our **Environment** section.

Given our successful meeting of targets to date, we are assessing global, science-based target setting, and will continue this work into 2021.

Governance Dashboard

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

SDG	Target	Vermilion's Contribution
	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 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	Internal policies on workplace violence, discrimination and/or harassment; whistleblower policies; respect for human rights Ethics policies Audited annual reporting Anti-corruption policies Internal governance structures Compensation and Board of Directors effectiveness disclosures

Commitments and Progress

2018 Target	2019 Target	2020 Target
Conduct annual "say on pay" advisory vote at AGM 102-37 Received 86% shareholder approval	Conduct annual "say on pay" advisory vote at AGM Received 94% shareholder approval	Conduct annual "say on pay" advisory vote at AGM Received 65% shareholder approval
Establish Board of Directors Sustainability Committee 100% achieved	Develop Sustainability Committee Terms of Reference and associated procedures 100% achieved	Conduct scenario analysis work at Board level 100% achieved

<p>Adopt a formal Gender Diversity Policy in respect of the nomination of women to our Board</p> <p>100% achieved</p>	<p>Incorporate sustainability-related information in regulatory filings in alignment with recommendations from the Task Force on Climate-related Financial Disclosures</p> <p>100% achieved</p>	
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Key Updates

Sustainability Committee: The Board established our Sustainability Committee to assist with oversight of Vermilion's approach to sustainability, including the Sustainability Policy, the long-range strategic plan, sustainability performance including key performance indicators, and methods of communicating sustainability policies and performance. The committee's role also encompasses identifying and reviewing emerging risks and opportunities associated with sustainability issues, including significant matters such as the energy transition and social impacts, including human rights, community investment, and government and other stakeholder relations, along with the integration of those risks and opportunities into Vermilion's Enterprise Risk Management framework.

In 2019, the Sustainability Committee:

- Reviewed Vermilion's long-range strategic plan for sustainability, including the sustainability materiality analysis and associated risks and opportunities such as climate change and human rights, how these risks are integrated into our enterprise risk management system, and how sustainability is integrated into the company's operations.
- Participated in Vermilion's scenario analysis to assess the potential trajectory and impacts on the company of the speed of the energy transition.
- Reviewed Vermilion's sustainability performance via results from third-party sustainability ratings agencies, including CDP, SAM, Sustainalytics, MSCI, ISS and Vigeo-Eiris.
- Reviewed key sustainability governance, reporting and performance recommendations from the Task Force on Climate-Related Financial Disclosures and the CCGG, and their addition to Vermilion's regulatory reporting.
- Reviewed the Board skills matrix to ensure appropriate representation of sustainability-related skills and experience, including climate-related issues.
- Reviewed Vermilion's approach to sustainability reporting from performance to publication, including the company's disclosure committee.
- Recommended to the Board of Directors the addition of a human rights policy to Vermilion's Code of Business Conduct and Ethics.
- Reviewed Vermilion's approach to lobbying and reporting.
- Reviewed Vermilion's strategic community investment program, including the global emergency responder and environmental stewardship programs.
- Recommended guest speakers with sustainability expertise, including climate change and ESG investment context, for Board continuing education, along with scientific and thought leadership papers from sources such as the World Economic Forum, the International Energy Agency, and the United Nations Sustainable Development Solutions Network.
- Visited Vermilion's field operations in Canada, Ireland and France, with stakeholder engagement including staff and community representatives.
- Reviewed the committee's Terms of Reference.
- Approved the contents of this annual summary report and recommended to the Board that it be included in this Circular

Board Composition: Effective May 25, 2020, Vermilion's Board of Directors is comprised of 9 directors and 1 corporate secretary. Eight Directors (89%) are considered independent, and two (22%) are female. As Executive Chairman of Vermilion Energy Inc., Mr. Lorenzo Donadeo is a non-independent director.¹⁰²⁻²²

Board Tenure: Five Directors (56%) have a tenure of less than five years.

CEO Pay Ratio: Although not required by regulations such as the Dodd-Frank Wall Street Reform and Consumer Protection Act, we disclose the annual total compensation of our CEO to the median annual total compensation for employees.¹⁰²⁻³⁸
¹⁰²⁻³⁹ Vermilion's 2019 CEO-to-worker ratio of 40-to-1 is magnitudes lower than the 287-to-1 ratio for S&P 500 Index companies reported in June 2019 by the [American Federation of Labor-Congress of Industrial Organizations](#). Note: In May 2020, the CEO role was replaced with an Executive Chairperson and President, and Vermilion created an Executive Committee to review and approve key organizational, financial, operational and strategic decisions.

Diversity: Our formal recruitment process for the Board and Executive Officer vacant positions 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. ¹⁰²⁻²⁴

Company and Board Performance – Awards: Vermilion is 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, MSCI and ISS. For details, please see our [Awards](#) page.

Our Approach to Governance

Our Approach to Governance, and Why It Matters

Vermilion is committed to a high standard of corporate governance practice. 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 mission to consistently deliver superior rewards to investors, employees, partners and the communities in which we operate.

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](#), which are published 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), and a New Venture Working Team: 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. In aggregate, we have 11 independent international Directors. 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. As a publicly traded company, we believe our stakeholders have a right to know this information, and that this level of disclosure strengthens trust in Vermilion.

Board Skills: We maintain two skills matrices to evaluate the skill set of the Board. Each Director rates their expertise in each area annually, on a scale from limited to expert. The results are then evaluated for individuals and for the Board as a whole. Following our most recent assessment, it was determined that the majority of directors are skilled, or at expert/mastery levels.¹⁰²⁻²⁸

The directors' skills matrices are 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.

The overall skills matrix includes:

- CEO / Senior Officer experience
- Managing / Leading Growth
- Oil and Gas Operations
- Reserve Evaluation
- Global Senior Officer / International Operations
- Health, Safety and Environment
- Governance / Board
- Financial Literacy
- Financial Experience
- Risk Management
- Human Resources and Compensation
- Sustainability, including Environmental and Social factors
- Government Relations / Regulator

In addition to the Board skills matrix, we are highlighting the skills and experience that our Board members bring to managing ESG factors in our Sustainability Skills Matrix. This aligns with recommendations from the Task Force on Climate-related Financial Disclosures, but extends beyond climate-related impacts such as emissions reduction programs, to recognize the importance of social impacts, including safety and strategic community investment. This matrix can be found in our annual [Information Circular](#).

Board Diversity: We recognize the importance of diversity as a component of board effectiveness and business performance, and have adopted a [Board Diversity Policy](#) that embraces a broad range of factors, including age, race, gender, personal attributes, skill, training, educational background and life experience. 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. 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 70 (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, MSCI and ISS. For details, please see our [Awards](#) page.

Ethics & Anti-Corruption

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

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

How We Manage Ethics

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 Executive 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, can then take those concerns directly to the Board of Directors.

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 policy 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 policy. Further information is contained in 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 annual financial audits.
- Political contributions: we do not contribute payments to political campaigns, political organizations, lobbyists 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.

Sustainability Governance

Our Approach to Sustainability Governance

At Vermilion, sustainability is integrated as part of our Strategic Plan into all of our activities, and is one of six key Strategic Objectives that drive our business performance. This demonstrates its position as a core element of our long-term vision, the strategy we use to achieve that vision, and how we evaluate our performance.

Why Sustainability Matters

As a responsible energy producer, Vermilion believes that we can best deliver long-term shareholder value by operating in an economically, environmentally and socially sustainable manner that recognizes the importance of all of our stakeholders. The integration of sustainability principles into our business is not only the right thing to do: we believe it increases shareholder returns, enhances our business development opportunities and reduces long-term risks to our business model.

How We Manage Sustainability

Responsibility: Vermilion defined our strategic objective as *Integrated* Sustainability because we believe sustainability impacts every business unit, department and employee in the company – and, in turn, they impact our sustainability. In keeping with this approach, the entire Board has responsibility for Vermilion's sustainability performance, with individual committees offering expertise and oversight on specific Economic, Environmental, Social and Governance (EESG) factors. In 2018, we also established a Sustainability Committee. 102-18 102-26 102-28

Committee	EESG Factor Overview
Audit	Financial information Risk management Internal control systems Audit processes
Governance and Human Resources	Board effectiveness and compensation risk Compensation philosophy and practices Corporate governance and performance People practices, including succession and development
Health, Safety and Environment (HSE)	Occupational, process and asset safety Environmental stewardship Risk management HSE-related sustainability initiatives

Independent Reserves	Reserves and resources Production Finding, developing and acquisition costs
Sustainability	Energy transition Social impacts, including human rights, community investment, and government and other stakeholder relations

To ensure full coverage of EESG factors, our Board skills matrix includes specific sustainability-related expertise, including environmental and social impacts. All of these skills are supported by Board training as required. With specific regard to Sustainability, we also benefit from the expertise of our Board members, including Mr. Timothy Marchant, who is an Adjunct Professor of Strategy and Energy Geopolitics at the Haskayne School of Business at the University of Calgary, and teaches graduate-level courses on corporate social responsibility and related areas.¹⁰²⁻²⁷

Organizational responsibility flows from the Board to our Executive Chairman and our President, and throughout the company via our Executive committee, on which our Executive Vice President, People and Culture is the executive member responsible for sustainability.



Various departments within the company report priorities and progress quarterly to either the full Board or Board committees on sustainability factors, including governance updates, HSE targets and performance, and developments within our strategic community investment program. In addition, our sustainability team provides a Centre of Excellence approach, advising the business on all aspects of sustainability and reporting quarterly to the Board's Sustainability Committee and/or the full Board regarding progress.^{102-20 102-26 102-30}

We believe this approach clearly communicates, both externally and internally, our commitment to sustainability as a priority throughout the company and positions us to recognize the opportunities it presents. It also supports the proactive manner in which we address external risks that have potential impacts on short and longer-term company performance, including:

- An adverse HSE event
- The volatility of oil and gas prices
- Potential changes to government regulations and fiscal policies in our operating areas
- Community and other stakeholder concerns and issues, and
- The long-term financial implications of climate change.

Vermilion's Board of Directors, Executive committee and Risk Management Committee regularly review these risks, along with mitigation strategies and associated opportunities (for more detail, view our [Risk Management](#) page).

Measurement

Internal: Vermilion's long-term vision is founded on six strategic objectives that cover the key elements of success, including: Extraordinary People; Best in Class Health, Safety and Environment; Top Quartile Shareholder Returns; Operational Excellence; Robust Portfolio, and Integrated Sustainability. Each of these has its own goals, supported by an Executive champion along with annual commitments that are reviewed regularly at the Executive and Board levels to assess and confirm progress.

Because sustainability objectives are included in long-term vision, progress on these drives both company and individual staff performance. We connect our performance to compensation through a pay-for-performance philosophy, combining reasonable base compensation with short-term and long-term incentive opportunities that are directly tied to operating and financial results, including fulfilment of sustainability commitments.

In 2019, we added a specific sustainability metric to our long-term incentive performance compensation scorecard. We believe there is a direct link between sustainability performance and overall business performance, including shareholder returns. Moreover, we expect sustainability performance to be a very significant factor in the long-term viability of our economic model, driven by increased emphasis on economic, environmental, social and governance impacts, including both risks and opportunities. As a result, we have introduced a sustainability measure to illustrate to our organization the growing importance of this measure, and to incentivize all members of our staff to focus on sustainability performance in their daily work. We are measuring our performance relative to our peer group in three independent, third-party sustainability rankings: CDP, SAM and Sustainalytics chosen in due to their robust peer benchmarking systems via Bloomberg. As sustainability ranking standards and agencies evolve, we will review our scorecard weighting and agency selection.

Thus, sustainability performance is linked not only to executive but also to employee compensation. We report on this externally through our Proxy Statement and Information Circular each year.

External: Our Board of Directors and our Executive committee continue to recognize our stakeholders' expectations and feedback as critical to Vermilion's success and integrate them into our ongoing processes for governance, strategy and performance. They are incorporated as goals into our strategic long-term vision, identified as commitments for annual planning, and assessed on a quarterly basis for progress against those commitments.

In addition to our stakeholder outreach, our stakeholders can communicate to the Board and to Vermilion in confidence directly and anonymously via our website, and via postal mail and email, dedicated Investor Relations phone and e-mail lines, investor relations presentations and events, and our annual meetings.^{102-21 102-29 102-30}

Evaluation and Adjustment

When we began our sustainability reporting in 2014, we identified that our focus was primarily internal, and that we would develop our external stakeholder engagement over time. In subsequent years, this external engagement has taken shape, as we have sought input from socially-responsible investment agencies, welcomed engagement from shareholder signatories to the United Nations' Principles for Responsible Investment, and launched a wide range of engagement via our Public and Government Relations and Community Relations work in our business units.¹⁰²⁻²⁸

Combined with our existing and ongoing sustainability work, this has led to three key areas of focus:

- Climate Policy approach, which is included in this report,
- Science-based Target Setting analysis, which we continue to assess while the Science-Based Targets Initiative progresses their work on establishing processes for the oil and gas sector, and
- Human rights and supply chain monitoring, which we began to analyze in 2018 through a preliminary assessment of environmental, social and governance approaches by our critical suppliers in each business unit, defined as those with whom we spent more than \$1 million. For each supplier, we are assessing public commitment to, policies and procedures regarding Health and Safety, Environmental Stewardship, Human Rights, Labour Standards, Anti-Corruption, and Sustainable Procurement.

This is critical foundational work, and we are investing both the time and the resources required to get it right.

Risk Management

One of the key roles of the board and company senior leadership is to provide risk oversight for Vermilion, including sustainability-related risks.¹⁰²⁻³⁰

Our Approach to Risk Management, and Why It Matters

As a responsible company, effective risk and crisis management is vital for Vermilion. 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.

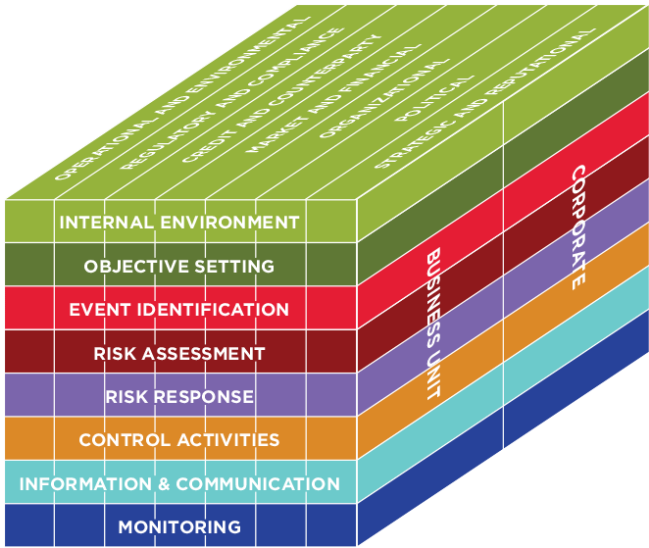
How We Manage Risk

Our Enterprise Risk Management program enables us to identify and continually monitor risks – including economic, environmental and social risks – defined in the following categories:

- Operational and environmental, including climate-related risks
- Regulatory and compliance
- Credit and counterparty

Vermilion’s Enterprise Risk Management Process

Risk associated with climate change has been quantified for each business unit utilizing the Enterprise Risk Management process. This process is utilized to assess implications and identify mitigating measures that are required to limit or reduce risk and potential liabilities to an acceptable and manageable level. Risk is assessed based on the anticipated impact severity and probability of an event occurring in consideration of human, environment, financial and social license to operate. Stakeholders in risk assessment include internal (Board of Directors, Executive, Staff) and external parties (Landowners, NGOs, investors, the general public, industry groups). Vermilion proactively conducts operational and engineering reviews aimed at increasing efficiency, including reducing emissions and monetary expenditure requirements at major facilities.



* Vermilion’s ERM process based on Coso ERM Framework

- Market and financial
- Organizational
- Political
- Strategic and reputational

Risk is assessed based on the anticipated impact severity and the probability of an event occurring, in consideration of human, environment, financial and social license to operate factors. We use our corporate risk register to assess implications and identify mitigating measures to limit or reduce risk and potential liabilities to an acceptable level. This provides uniformity across the company while allowing for customization in each of our Business Units.

A detailed discussion of our risk factors can be found in our [Annual Information Form](#), and is aligned with the Task Force on Climate-related Financial Disclosures (TCFD).

Risk Identification: Staff in operations and departments throughout the company feed into this risk framework in their own areas of expertise. Teams and specialist staff across the business - including HSE, Finance, Governance, Economics and Sustainability - identify risks and work together as needed to assess impact and probability. The results are provided via briefings and advisory services to senior management, the Executive team and the Board of Directors.¹⁰²⁻³¹ Our staff also play a key role in identifying potential risk areas through their participation in the anonymous surveys prior to and after our quarterly global town halls. Their feedback and questions are shared with the Executive committee, which in turn uses the information to guide strategy discussions, and reports back to staff with responses to concerns, ideas and suggestions raised. The feedback is also communicated to the Board when considered material.

In addition, external stakeholder engagement is used to identify risks that are important to those external to the company, including communities, landowners, investors, government and regulators, NGOs, the public and industry groups.

Risk Management: To manage identified risks, our internal control processes are proactive, and designed to help us achieve our business strategy of maximizing free cash flow generation and returning capital to investors when economically warranted, augmented by moderate organic production growth and value-adding acquisitions. Our management approach reflects this, with a 10-year long-range plan that covers business strategy and related goals and objectives.

Risk awareness and management are the responsibility of the Board and the Executive committee. Vermilion's Board independently reviews the effectiveness of our identification and management of risk quarterly, through its four committees. This gets translated into action by our Executive committee, through implementation of associated policies and procedures that the Board approves.¹⁰²⁻³¹

Measurement

Board governance of risks, including economic, environmental and social risks, is self-assessed annually against our corporate performance scorecard indicators. These include both standard industry metrics and internal measures of performance that are compared to plans established by management and approved by the Board of Directors each year.¹⁰²⁻³⁰

Evaluation and Adjustment

Our corporate risk register is reviewed annually, and updated on an as-needed basis.

The Board has responsibility for reviewing all risks, including climate related, and their implications for our business strategy. Our Executive Committee is responsible for the review and management of the Enterprise Risk Management process. These form an integral part of decision making and are documented and regularly reviewed, with appropriate action taken to manage risks to a level as low as reasonably practicable. For each risk case, our technical teams, business unit leadership, executive team and Board of Directors (depending on the risk case) assess the scope and materiality of the risk. These reviews include an assessment of the integrated nature of many risks that span more than one risk category. These assessments feed into our Corporate Risk Register, which provides a consistent framework to ensure the effective tracking of all of our material risks, communication of our risks throughout the organization, as well as the mitigation plans associated with reducing their impact.



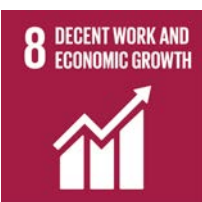
Sustainability-related risks and opportunities, including those related to climate, are identified by key staff across our Company, including our Health, Safety and Environment team, Sustainability team, Government and Public Relations teams, and our business unit leaders. All of these employees have significant experience in their fields, and gather a wide array of inputs that inform our analysis. These include research reports, external stakeholder organizations, government policy and regulation discussions, industry initiatives, communities and landowners, and global non-governmental entities.

As part of our ongoing cycle of risk identification, every business unit assesses all current identified risk cases to determine where climate-related risk is a contributing factor. These are incorporated into the Corporate Risk Review, and provided to the Board's HSE and Sustainability Committees, including projected timelines and the mitigation or opportunity measures related to them. This process formalizes identification and assessment of climate-related risks and integrates them into the overall Enterprise Risk Management system, supporting the Board's oversight of climate-related risks and business sustainability.

To support climate risk identification and management, we have also developed a Carbon Liability Assessment Tool, with Scope 1 emissions quantification information and regulatory information for each business unit. We assessed the price of carbon on both a realized cost and shadow pricing basis, and have identified likely carbon pricing scenarios for all areas under our operational control. The Tool provides a screening-level overview of Vermilion's exposure to this emerging financial risk factor. It also provides the basis for carbon liability risk cases for all business units, supports ongoing identification of carbon opportunities, and supports activities such as business development, taxation review and Marginal Abatement Cost Curve preparation.

In 2019, we further integrated our sustainability materiality analysis (incorporating issues with impact for both the Company and our key stakeholders) into our Enterprise Risk Management process and Corporate Risk Register.

People Dashboard

SDG	Target	Vermilion's Contribution
	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 a parental leave program, vacation purchase program, flexible working hours, and the ability to work part-time 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.

Annual Targets	2019
100% of permanent employees participating in an annual performance review and development plan	96% achieved
Strong employee participation numbers in the Great Place to Work survey in all of our participating jurisdictions	80% response rate

Key Metrics

TOTAL WORKFORCE

At December 31, 2019, our global team comprised 1,055 people:

- 78% permanent employees
- 53% of our workforce is located in North America, 40% in Europe and 7% in Western Australia
- 28% women: slightly more balanced than the gender split of the global oil and gas industry, which reported 22% women via a 2017 study by The Boston Consulting Group and the World Petroleum Council

Key people metrics in 2019

- 125 new hires
- 135 internal moves: 32 lateral, 45 promotions and 58 contract conversions
- 15,614 hours of training and development
- Voluntary turnover rate of 6%, including retirement, and total turnover of 9.2%. 401-1

Diversity and WOMEN IN LEADERSHIP

We recognize the importance of equitable gender representation for Board and executive roles. In 2018, the Board approved an amendment to the Diversity Policy addressing gender diversity, which introduces a candidate selection step into our recruitment process for Board and executive positions. The candidate selection step requires reasonable efforts to ensure at least 50% of applicants are women. Our intent is to broaden each search process to ensure qualified candidates of both genders are available for consideration. For senior leadership roles, we will continue to develop our mentoring pilot program, with a focus on identifying high potential female employees, developing their management skills and preparing them for senior leadership roles in the future, by matching participants with members of the Vermilion Management Team (Executives and Direct Reports of Executives) to focus on their professional development.

Increasing diversity in leadership will be managed over time and in line with market. We anticipate an implementation period of five years given our internal talent pipeline for executive positions as our preferred source, and market availability for Board and executive positions. Accordingly, the current Board Diversity Policy does not include a formal target to be achieved by a specified date for the gender composition of the Board or executive officers.

Two out of 9 (22%) Directors on our Board are female and one out of five (20%) of our senior management team is female. In 2019, 16% of leadership roles at Vermilion were held by women.

Our Approach to People

OUR APPROACH TO PEOPLE, AND WHY IT MATTERS

Our overall focus is on building a team of highly motivated, empowered people who work together to deliver superior results and make Vermilion a great place to work. Because we view our strong culture as the single most important factor in our long-term success, it influences everything we do, which is why we focus on:

- Preserving the key components of our culture and finding ways to keep our people highly engaged and satisfied;
- Offering unique career development opportunities that lead to superior attraction and retention of talented people;
- Offering flexibility to address the diversity of our people; and
- Being proactive in resourcing our business to meet both current and future demands.

We recognize that our staff are key to achieving our operational and business goals. It is therefore of paramount importance to ensure our staff are motivated and resourced to support high performance, integrity and teamwork.

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 look for 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 and to integrate them quickly into our culture. This includes reviewing our People, Code of Business Conduct and HSE policies, reviewing compensation and benefits, ensuring IT systems are available when they arrive, and providing key information about our company and our culture to help them feel at home and to connect them quickly with their immediate team and key colleagues they will be working with.

Compensation and Benefits

A market-competitive compensation and benefits approach is one way we acknowledge the value our people bring to Vermilion. Our programs are designed with a common structure, including base, short term and long term incentives, across all geographies where possible, with alignment to local markets.

Our compensation philosophy and program objectives are the same for employees at all levels, and are laid out in detail in our Information Circular and Proxy Statement annually. 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 for all employees and our senior management team. These metrics include key sustainability and HSE performance indicators, supporting our priorities of safety and environmental protection, market performance as compared to peers, and financial and operational measure focused on profitability.

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 that 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.

We measure both corporate and individual performance in similar ways. For our employees, the performance management process includes:

- Setting clear expectations for performance;
- 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.

Individual performance is tied to the six strategic objectives within our business strategy (Extraordinary People, Best-in-Class Health, Safety and Environment (HSE), Top Quartile Shareholder Returns, Robust Portfolio, Operational Excellence and Integrated Sustainability). In this way, performance measurement and, in turn, compensation are tied directly to the metrics that underpin the strategic objectives, including those for HSE and sustainability. These include both standard industry metrics and internal measures of performance, and are discussed annually in the Information Circular.

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, plus 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 2016, in response to employee feedback requesting additional flexibility to support work-life balance and family life.

To learn more about Vermilion's compensation and benefits plans, please see our annual Proxy Statement and Information Circular.

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. In a smaller company, this reporting could lead to being able to identify outcomes for those indirectly involved in the investigation as, for example, 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 employees. Our Works Councils were established in France in 2006, in The Netherlands in 2015 and in Germany in 2016. Today, we have a Works Council in place in France, and in Germany for our field staff. In the Netherlands, the Works Council became dormant in 2018, but will resume when staff express interest to join the council.¹⁰²⁻⁴¹

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.

We therefore have Fair Culture policies outlining these procedures that 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 at Vermilion. Leaders make themselves available to staff, and staff feel comfortable approaching leaders. Members of our senior management team also make regular visits to our field and international business unit locations, to help staff throughout the world feel part of the whole organization. Through the annual **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 2017, in response to requests from staff, we expanded its original languages of English and French to include Dutch and German. Content generation and publishing is a shared responsibility amongst stakeholders from across the organization, and we take a centrally managed approach to ensuring the editorial content remains fresh and informative, ranging from corporate news to community investment activities in all our locations. Every VETnet page features a Suggestion button, which staff can use to make suggestions or raise concerns. We respond to these suggestions within one business day.

Town Halls. These meetings are held three to four times per year, and focus on updates from business units and key areas such as HSE and Community Investment, feature leaders and staff from around the world presenting our progress and plans, and are transmitted and archived globally so that staff can access them regardless of location and time. A confidential staff pre-survey provides staff with opportunities to raise questions and make suggestions to the senior management team, who participate in a Q&A panel at the town halls where they answer these questions, and any others that are raised during the town hall. A confidential post-survey provides staff with a forum to provide feedback on the effectiveness of the town halls, the 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 the staff feedback is incorporated into ongoing company strategy discussions.

Quarterly CEO Updates. Our President and CEO provides business updates every quarter via email to all staff, highlighting our performance and priorities.

MEASUREMENT, EVALUATION AND ADJUSTMENT

As a high-performing, global organization, Vermilion uses an integrated, web-based people information system that enables employees to easily manage their personal information while providing leaders access to required information on their teams. This system supports our focus on Extraordinary People, one of the six strategic objectives that comprise our VETVision business strategy, by providing staff immediate access to information they need.

Consistent and growing use of the system across the organization has enabled us to capture, verify and report significantly more data since 2012/2013. ¹⁰²⁻⁴⁹

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

- Voluntary turnover rates;
- Ease of finding qualified candidates;
- Analysis of results from **Great Place to Work** staff survey, including department and team workplans that respond to staff concerns and suggestions;
- Monitoring of and action in response to staff suggestions via the intranet;
- Market surveys to ensure we remain competitive;
- Analysis of changing legislative or regulatory requirements; and
- Gap analysis for performance metrics.

In 2017, we assessed our programs in light of the UN Sustainable Development Goals, identifying opportunities to drive key targets within the Goals that are aligned with our People Approach. This showcased the importance of SDGs 3.4, 5.4 and 8.2, as referenced on our Dashboard page.

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



Our Approach to Human Rights

OUR APPROACH TO HUMAN RIGHTS, AND WHY IT MATTERS

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. It also relates to the responsibility of all of us to support the safety and wellbeing of everyone in our wider communities.

In 2019, we formalized our commitment by including human rights 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.”

We are continuing 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 ensure we understand where and how modern slavery might occur within Vermilion and within our supply chain.

As a first step in analyzing our supply chain, we are focusing on all suppliers with which we spent more than \$1 million in 2018 and 2019, assessing whether they have public commitments to human rights in place, and the level of detail and external assurance within those commitments. Our assessment is continuing, and specifically examines the risk of human rights issues within our operations, and within our value chain, including Indigenous peoples, children, migrant labour, and contracted labour.

So far, this is providing a useful view of where and how potential human rights issues may occur, along with recommendations for Vermilion's due diligence and commitment in this area.

Performance Management, Training and Development

OUR APPROACH, AND WHY IT MATTERS

Our robust 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 a combination of:



- 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 job-related training, along with career and personal development, is a critical element of employee engagement, building productivity and contributing to staff attraction and retention.

MANAGEMENT

Vermilion is committed to engaging and supporting employees as they identify and achieve career and development goals. Our performance management program is a yearly cycle that involves setting clear expectations for performance, identifying opportunities to learn and grow, providing ongoing feedback, evaluating goals, and recognizing accomplishments. ⁴⁰⁴⁻³ To support this, we provide informal and formal training and development opportunities that fulfill both company and employee needs. ⁴⁰⁴⁻²

We place high importance on our performance management program, as it supports two-way communication between leaders and staff, and we aim for 100% participation for permanent employees.

The 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. Performance goals are tied to our six key strategic objectives, ensuring that employees know how their work supports the company, and how they make a difference to our success. Evaluation of individual performance, in terms of the results achieved and how those results were accomplished, is done via a mid-year checkpoint and then through the *Looking Back – Performance Review* process that occurs at year-end.

Performance conversations and ongoing feedback between leaders and staff throughout the year are key ingredients to ensure performance is on track and recognized.

WE KNOW THAT WHEN WE DEVELOP OUR PEOPLE, WE BENEFIT NOT ONLY OUR STAFF BUT THE WHOLE COMPANY, AS IT HELPS US TO RETAIN AND ATTRACT THE BEST TALENT IN THE INDUSTRY.

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.

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. Together with the Great Place to Work feedback, it 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 to expand our lunch 'n' learn program to topics such as reserves, investor relations, and employee benefit programs. In addition we have had a strong focus globally on 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 annual survey. This question provides a clear measure of employee engagement and satisfaction. Beginning in 2016, we were also able to compare the answers to this question to the training and development funding per business unit, track responses compared to funding levels.

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



A Great Place to Work

OUR PEOPLE TELL US VERMILION IS A GREAT PLACE TO WORK!

Vermilion continues to demonstrate 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.

In 2019, Vermilion was 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.

Our rankings – and staff participation rates – have remained strong since we began our involvement with the Institute in 2010. Our 2018 global participation rate for employees was 84%.



In part, we attribute our strong results to the importance we place on reviewing and addressing the staff feedback shared through each business unit's annual survey. We believe this is so important that we ask staff

in all business units to participate in the survey, regardless of whether their staff count meets the minimum requirement to compete for Best Workplace recognition. This is the case in Australia and the United States, where our staff count is below the qualifying threshold.

Through the survey results, we gain a strong understanding of why our people choose to come to Vermilion, what they value and why they choose to stay. Competitive total compensation, exciting opportunities for growth and development, and pride in how we give back to the communities where our people live and work continue to be reasons why our voluntary turnover rate is among the lowest in our industry.

Here are just a couple of unabridged comments from staff on what makes our company a great place to work:

Professional and personal culture has been carefully developed on a corporate scale. All workers I have interacted with are proud to say they work at Vermilion. I count myself lucky to be able to come to work every day at this company.

I believe we care about the wellbeing and safety of our people. We strive to train and assess our people to ensure they are well informed of their jobs and the hazards, risks and mitigation to perform their jobs well and safely. Not only for their safety but the safety of other people in our community and the environment. I would want my family members to work for us or an organization with our same values as employees or vendors knowing that we are trying our best to ensure everyone arrives home safely every day. I think we are doing fairly well on mentoring our workers and strive to continuously improve.



Feature: Energy Apprenticeships

Vermilion is playing a key role in an industry partnership in Australia that has created a standardized education and training program to increase the supply of safe, skilled workers. It's already making progress: the first Energy Apprenticeships Group Academy (EAGA) class started training February 2016 and will enter the workforce in 2020, employed at oil and gas facilities across Australia.

The EAGA program operates in addition to Vermilion's own apprenticeship program, but focuses on those leaving secondary (high) school. Approaching people at this early stage in their work life provides an opportunity to raise awareness of the potential benefits of work in the industry, particularly among young women.

The partnership is focused on addressing future workforce requirements through collaboration to achieve cost-effective and sustainable results. This includes Vermilion and other industry leaders from Shell, Woodside, and Quadrant, along with Energy Apprenticeships Group and the Challenger Institute of Technology's Australian Centre for Energy and Process Training.

Together with the Resources Industry Training Council, they formed a steering committee to provide guidance and direction for the project. Graduates of the four-year course will have:

- Formal qualification, in engineering and Process Control training packages
- Life skills training (conflict resolution, etc.)
- Underpinning knowledge in oil and gas systems
- Secondments to operational workshops (valves, pumps, etc.)
- Secondments to live oil and gas facilities

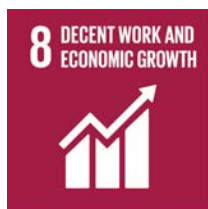
Candidates take part in ongoing assessment and reporting to measure their progression and ensure they are meeting milestones on their training plan, with oversight from the industry-driven steering committee. EAGA adopts best practice methods for the recruitment and support of Aboriginal and Torres Strait Islander people, which includes a full-time advisor offering pastoral care and collaboration with indigenous communities. Where applicable, the EAGA model can be adapted for indigenous-only pathways.

2020 Update: Two Process Operator Trainees began their first swing on Wandoo in October 2017 as part of the Energy Apprenticeship Group partnership. The trainees spent 2 years at the ACEPT training facility completing the Certificate III in Process Plant Operations and various site visits.

At Wandoo, they are working within the operations team to gain experience in the process on the platform as

well as Vermilion's culture. In February 2020 they completed their apprenticeship, and continued both individuals are still working with Vermilion.

With this programs now run through the Programmed Skilled Workforce, we expect to resume offering apprenticeship trainee places as the pandemic situation allows.



HSE Dashboard

[Click here](#) to see our SDG integration with Safety



[Click here](#) to see our SDG integration with Environment



In 2019, we were very pleased to work with CDP on a case study based on our operations that examined how an oil and gas company manages the low-carbon transition. This study highlights our success at linking geothermal energy with traditional oil and gas production, demonstrating the potential synergies between them, along with our track record of decreasing the energy and emissions intensities in our operations, particularly with respect to acquisitions. The case study can be found [on the CDP website here](#).

In 2019, we met all of our corporate leading HSE Key Performance Indicators (KPIs) and our individual business units met >96% of our leading HSE KPIs. Our 2019-2020 HSE accomplishments are an indicator of our progress towards realizing our HSE vision. These include:

AREAS OF FOCUS	2019-2020 ACCOMPLISHMENTS
HSE Culture	<ul style="list-style-type: none"> ➤ Conducted our third global HSE Perception Survey in 2019; overall participation rate of 93% ➤ Guided more than 8,200 hours of HSE-related training in 2019 ➤ Continued comprehensive HSE integration plan for Vermilion's new and emerging operations (includes Central and Eastern Europe, Germany, United States, Ireland and Canada expansion)
Communications & Knowledge Management	<ul style="list-style-type: none"> ➤ Expanded our company-wide HSE leadership training program to improve hazard identification and risk reduction ➤ Implemented a new Environmental and Event Management Information system ➤ Continued reinforcement of our "High 5" Individual Responsibility Awareness Initiative globally
Management Systems	<ul style="list-style-type: none"> ➤ Completed a comprehensive assessment of our Event Management Information System to prepare for an upgrade in 2020 ➤ Ongoing status review and update of HSE Management System structure and content ➤ Completed numerous corporate standard/practice updates related to operational risk management, contractor management, marine transportation, and environmental management;
Health	<ul style="list-style-type: none"> ➤ As part of pandemic response plan, further developed mental health and well-being support programs
Environmental and Operational Stewardship	<ul style="list-style-type: none"> ➤ Achieved CDP Climate Leader "A" List in 2016 and "A-" rating in 2017, 2018 and 2019; we are one of two Canadian Energy Sector companies, and one of only four in North America, to achieve a Leadership Level score in 2019 (Top 6%) ➤ Initiated data gathering and quantification to meet the CDP Water reporting requirements for the 2019 data set and completed our first CDP Water submission in 2020 ➤ Expanded our Emergency Response Plan capabilities to align with our Central and Eastern European drilling and completions activity

Our HSE Approach and Management

Our Approach to HSE, and Why It Matters

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: Everywhere. Everyday. Everyone." 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 most.

Management of HSE

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 will protect the health and safety of our employees and contractors, and the public. Our HSE vision is to fully integrate Health, Safety and Environment into our business, where our culture is recognized as a model by industry and stakeholders, resulting in a workplace free of incidents.

Our HSE Vision

To fully integrate Health, Safety and Environment into our business, creating a culture recognized as a model by industry and stakeholders, resulting in a healthy workplace free of incidents.

Vermilion will maintain health, safety and environmental practices and procedures that comply with or exceed regulatory requirements and industry standards. Vermilion's HSE actions will reinforce our corporate Core Values of Excellence, Trust, Respect, and Responsibility.

Vermilion Energy will:

- *Maintain a strong integrated Health, Safety and Environmental Management System to identify and manage risks;*
- *Accept responsibility and accountability for providing leadership, visible commitment, and direction to meet our HSE performance targets;*
- *Continuously evaluate and improve policies and operating practices;*
- *Integrate HSE into business objectives;*
- *Provide every employee and contractor with a safe and healthy workplace;*
- *Make a positive contribution to the protection of the environment and seek improvements in the efficient use of natural resources;*
- *Respond promptly, responsibly and effectively to emergencies;*
- *Focus on continual improvement of HSE performance;*
- *Ensure open and timely HSE communication with all stakeholders;*
- *Ensure the resources necessary to support this policy are provided.*

Hazard awareness, incident prevention and environmental awareness comprise an integral part of any job. It is a joint effort that requires continuous support of 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 its contents, and shall commit themselves to its implementation.

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 Managing Directors 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 quarterly 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.

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.

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, which has been in place since 2011, has resulted 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 alike. 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 Corporate Contractor/Vendor Selection and Management Guidelines include 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 **Hi High 5 personal safety initiative** and site-specific hazard awareness.

5 Key HSE Pillars

Our HSE work is guided by our belief that there are clear linkages between strong HSE performance and strong business performance. We consolidate our efforts and focus on five key pillars of HSE performance, because this enhances our ability to advance our HSE priorities and reduce our risk, which in turn helps us ensure worker and public safety, environmental protection, and the delivery of superior business results. Within each pillar, we have developed longer-term outcomes to articulate what we want to achieve now and in the future:

KEY HSE PILLAR	VET VISION OUTCOMES
HSE Culture	<ul style="list-style-type: none"> ➤ Management and the workforce are actively involved in delivering HSE performance & improvement ➤ The organization looks at what might go wrong and takes steps to prevent it ➤ The organization creates an environment of empowerment, trust and accountability
Communications & Knowledge Management	<ul style="list-style-type: none"> ➤ Continuously learns and shares information to improve performance ➤ Values training and validates competencies ➤ Demonstrates reliable data systems, analysis, trending and generation of improvement actions
Technical Safety Management	<ul style="list-style-type: none"> ➤ Has a broad array of systems and practices to identify hazards and manage / reduce risks ➤ Demonstrates regulatory compliance ➤ Provides important organizational focus to low probability, high consequence events
Incident Prevention	<ul style="list-style-type: none"> ➤ Focuses on proactive measures for incident prevention. Responds promptly to hazards and takes immediate action ➤ Intervention is seen as a positive action
Operational Stewardship & Sustainability	<ul style="list-style-type: none"> ➤ 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

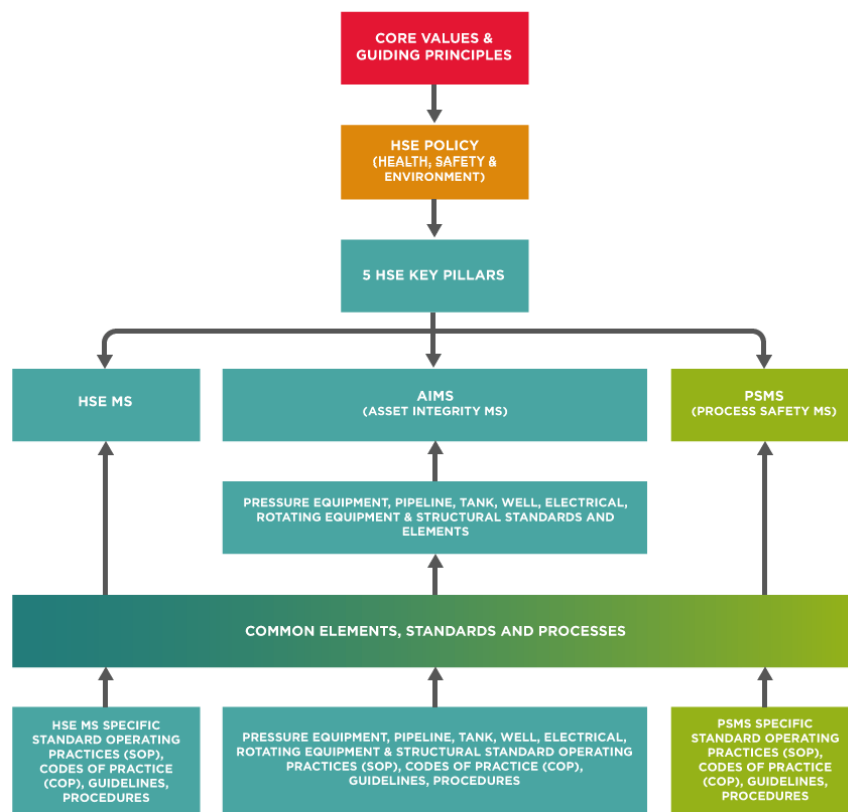
THREE MANAGEMENT SYSTEMS FORM THE INTEGRATED FRAMEWORK OF VERMILION'S HSE CULTURE.

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 at Vermilion where HSE is always a priority.

The HSE MS reflects the principles of the ISO 14001, OHSAS 18002:2000, and API Standard models to ensure that health, safety and environmental issues are systematically identified, controlled, and monitored.

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

HSE Management System



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.

Asset Integrity Management System

AIMS serves as the framework of processes and procedures that helps us execute safe and reliable asset operation. 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.

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. 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.

HSE Measurement and Evaluation

MANAGEMENT, EVALUATION AND ADJUSTMENT

The foundation of our event measurement is our corporate Event Management Information System (EMIS), a web-based system that is accessible to every staff member, which collects information from each of our operations about potential hazards, events and the actions taken to resolve them. This also includes all health, safety, environmental, regulatory and public complaint incidents, near misses, unsafe acts and conditions, their root causes, actions taken, and preventive measures to avoid such incidents in the future.^{403-2c}

Because of the potential risk to our people, the public and the environment, our Executive Committee are immediately informed of all high potential near misses, recordable injury events and serious incidents entered into our EMIS. This reflects the critical importance of HSE at Vermilion. Lost time incidents and serious events are also reported to all staff throughout the company, with a focus on key learnings and prevention.

Our data collection, methodologies and tracking have consistently improved since our first public reporting from the years 2012 and 2013. This baseline has progressed into trend analysis and beyond. It now allows us to assess a detailed set of analysis associated with identified hazard exposure and root cause, with particular consideration given to our top fatal risks, allowing us to identify additional areas for improvement.

Vermilion uses a variety of HSE 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. These are reported internally on a real-time, monthly, quarterly and annual basis, with select metrics included in our sustainability reporting.

We focus our efforts on the development of meaningful leading indicators that tell us how effective we are at identifying and reducing hazards in the workplace. Our leading indicators include activities such as contractor observations, site inspections, finding closeout, compliance/regulatory inspections, emergency response exercises, 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 (outcomes) include elements such as lost time incidents, total recordable injuries, motor vehicle accidents, liquid spills and release volume, and emergency response plan effectiveness.

However we realize that 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. Because of the drawback associated with this type of metric, we prefer to concentrate our energy towards more proactive performance measures.

Our HSE KPIs are included in the calculation of our Corporate Performance Scorecards for 1-year performance (25% weighting) and 3-year performance (via the significant HSE contributions to CDP, SAM and Sustainalytics rankings, which carry a 10% weighting). As such, they directly impact all employee and senior management team compensation. (For more information, see our [Leadership section](#).)

We also use the analysis of results from our staff HSE Perception Surveys, and audit and compliance reviews, to understand areas for further development. This feeds reviews and improvements to our HSE MS and our sustainability work.

HSE Training and Communication

One of Vermilion's HSE Pillars is Communications & Knowledge management. This provides important focus for continual learning and sharing of information to improve our performance and helps validate competencies across the organization.

HSE COMPETENCY FOR LEADERS

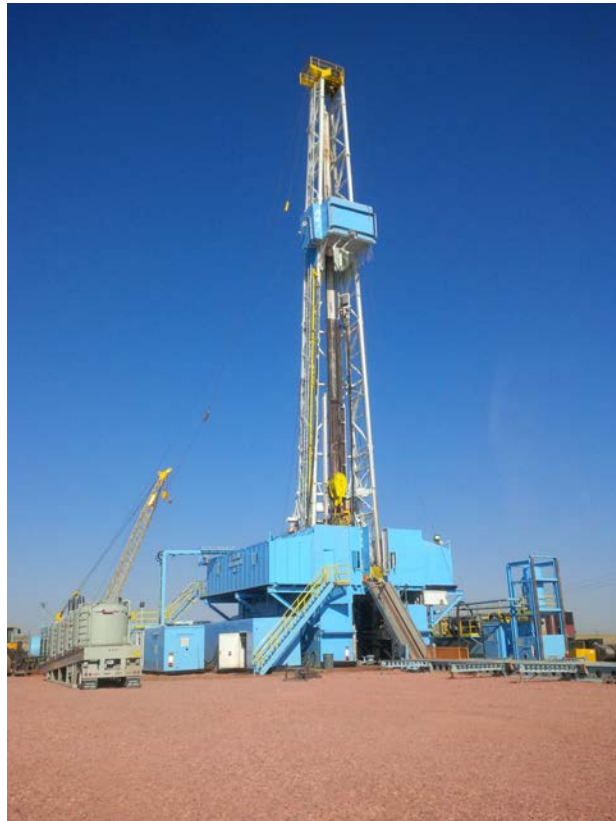
Vermilion is committed to ensuring all of our staff and leaders understand the importance of HSE and demonstrate this in their actions. All Vermilion's leaders – whether operational or non-operational – contribute to Vermilion's success by generating HSE awareness, identifying hazards, and understanding and mitigating the HSE impact of requests made of staff and operations. That's why our **Employee** 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.

In practice, we expect our leaders to act in accordance with all HSE policies, standards, procedures, legislation and core values, 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, and
- 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 and how they can meet Vermilion's HSE expectations. This focuses on seven key areas:

- 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.

Ultimately, this work is intended to 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


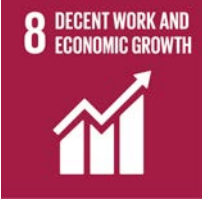

Additional HSE training takes many forms throughout our organization, and includes external certifications along with internal training courses and seminars with such focuses as HSE leadership training, hazard awareness and management, functional process hazard and risk analysis, incident investigation,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

HSE COMMUNICATIONS

We believe that regularly communicating key HSE information supports our focus on culture, including creating 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. On a quarterly basis, 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
- Weekly HSE spotlight stories on our intranet, with content encouraged from all staff members throughout the business

Safety Dashboard

SDG	Target	Vermilion's Contribution
	3.6 Halve the number of global deaths and injuries from road traffic accidents	Vermilion has 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 focus on continuous improvement to our HSE Management System to support this, and report robust Occupational Health & Safety KPIs in our Performance Metrics 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.

Commitments and Progress

2018	2019	2020
Implement Personal Safety Awareness Initiative globally 100% achieved	Evaluate and select vendor for new Environmental and Event Management information System 100% achieved	Implement Environmental and Event Management information System globally In progress

<p>Further development of our comprehensive Process Safety Management System through detailed Process Hazards Analyses</p> <p>Continued development of tools extends into 2020</p> <p>Extended to 2020</p>	<p>Complete Corporate Risk Management Standard</p> <p>100% achieved</p> <p>Update Corporate Contractor/Vendor Selection and Management Guidelines</p> <p>Extended to 2020</p> <p>Roll out Environmental Guidelines globally</p> <p>100% achieved</p>	<p>Develop Corporate Risk Management Standard training and rollout</p> <p>100% achieved</p> <p>Develop and roll out contractor Selection and Management Standard and roll out</p> <p>100% achieved</p>
<p>Ongoing development and implementation of OCP in Canada and France; review and update in The Netherlands; ongoing review and updates to Australian online training</p> <p>100% achieved, with additional work ongoing in 2019</p>	<p>Ongoing implementation of competency system in France</p> <p>In progress</p> <p>Further updates to Australian online training</p> <p>100% achieved</p>	<p>Ongoing implementation of competency system in France</p> <p>In progress</p>
<p>Obtain safety case approval for Corrib operation and integrate Ireland operations in Vermilion HSE plan</p> <p>100% achieved</p>		

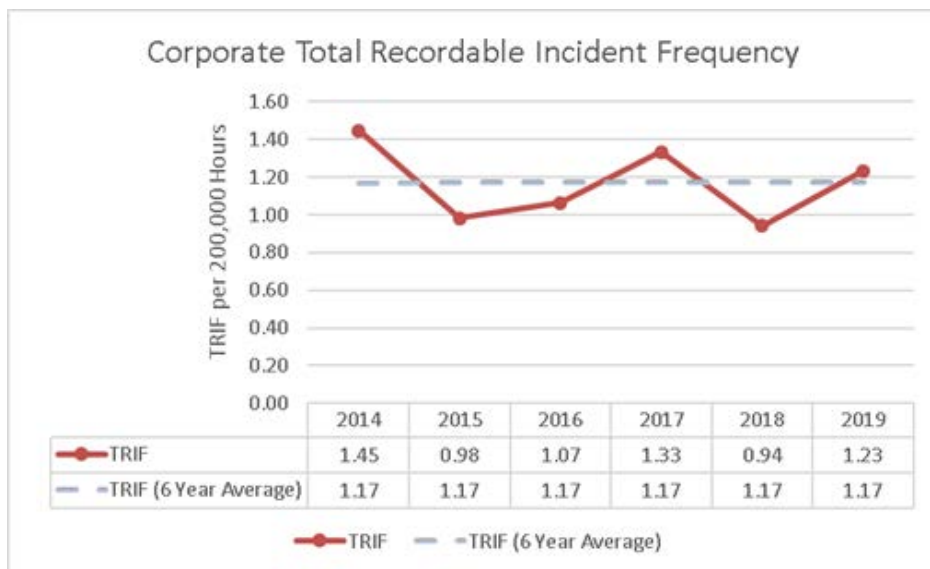
SAFETY Performance Measurement

Vermilion uses a variety of HSE 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

We recognize that to adequately assess HSE performance, we need to 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. Because of the drawback associated with this type of metric, we prefer to concentrate our energy on more proactive measures of performance.

Total Recordable Injury Frequency, or TRIF, is a standardized calculation commonly used to report recordable injuries per 200,000 hours worked. As with any other lagging indicator, it is a measure of yesterday's safety performance, once hazardous energy has found its way through controls and inflicted harm.

Total Recordable Injury Frequency (TRIF)



TRIF are shown from 2014 to 2019. As part of our overall safety management processes, we fully investigate all incidents and near misses, and implement corrective actions. We also communicate lessons learned across our business units to continuously improve our performance.

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.

In addition to our overall HSE approach, we have established management tools and processes that are specific to the protection of the health and safety of our workers and our communities.

PUBLIC SAFETY & EMERGENCY RESPONSE

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

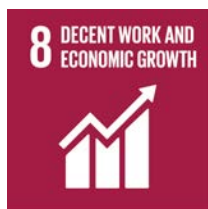
As part of our robust emergency response plans, we have communication plans in place throughout our global locations, including outreach to our communities and nearby landowners. For example, our Corrib operation in Ireland includes online community emergency response information for both the [Corrib Gas Onshore Pipeline and the Bellanaboy Bridge Gas Terminal](#)

WE REGULARLY CARRY OUT EMERGENCY RESPONSE EXERCISES TO TEST OFFICE AND FIELD STAFF RESPONSE TO EMERGENCY SCENARIOS.

Vermilion's organization and response to emergencies follows the globally accepted Incident Command System (ICS). The ICS design structure is applicable to all kinds of emergencies and is suitable for both small and day-to-day situations as well as very large and complex incidents. It is applied consistently with local emergency responders and across each operating area, and provides a common organization structure to aid the management of resources at emergency incidents. 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.

ERP exercises include table top exercises, simulations, and combined exercises with Corporate Headquarters, along with site-specific emergency drills such as building evacuations:

Level 1 ERP	Level 2 ERP	Level 3 ERP	Level 4 ERP
Table top exercise – Includes discussion of various emergency scenarios, cross training of ICS roles and responsibilities.	In-Country Operations-only Simulation – Includes the mobilization of business unit staff, first level of scenario role playing.	Simulation includes Vermilion's Corporate Command Team Activation. Corporate Command owns corrective action logs and improvement schedule. Role playing of all Vermilion personnel involved.	Simulation includes Vermilion's Corporate Command Team Activation and external parties (other industry, emergency responders, government authorities, other external stakeholders).



TOP FATAL RISKS

We have worked extensively with our international operations to analyze a comprehensive data set and identify our Top Fatal Risks. Together, we selected risks that were common across our operations for a more detailed review, assessed related hazards, and developed comprehensive plans specific to each business unit to eliminate or prevent those hazards from occurring, or identify the barriers and controls required to help prevent an event from happening. We have implemented changes to our systems to help ensure the organization is focused on preventing these critical risks.

We identified our top fatal risks at Vermilion as:

- Transportation
- Energy Isolation (electrical / mechanical, etc.)
- Crushed / caught between
- Struck by
- Process hydrocarbon release
- Working at / Fall from heights
- Structural Failure

Each of these risks is the subject of strong management programs, corporately and within our business units. 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.

We build on our people's experience, demonstrating the effective collaboration of our operations and management groups. Hazard identification and risk management programs have been put in place that align with the efforts we've directed towards competence and training programs in our operations. In addition, Vermilion maintains leading HSE KPIs, which our staff can access on our corporate intranet, to follow Vermilion's progress on hazard awareness and risk as part of our corporate scorecard. The leading KPIs are monitored as an indicator of the health of Vermilion's integrated HSE MS.

HIGH 5 - PERSONAL SAFETY AWARENESS INITIATIVE

As part of Vermilion Energy's commitment to HSE, we always strive for improved tools to ensure everyone who works with us returns home safely. This is our top priority. As part of our commitment to continuous improvement, including reducing workplace-related injuries, we developed and implemented an additional layer of personal safety protection called Vermilion High 5. This 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.



1. Do I clearly understand what I am about to do?
2. Do I have the right tools and experience?
3. Have I identified all hazards around me and others?
4. Am I, and is everyone else, out of the line of fire?
5. Can we proceed with the work?

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 any required actions implemented to ensure a safe workplace. Only once the answer to every question is yes may work start or reassume. We believe this simple personal safety awareness initiative tool can prevent many HSE incidents.

This tool has been rolled out globally, to our staff and to vendors who work with us. It does not replace any design, technical and administrative layers of protection that we already have in place, but is an additional layer of defense to achieve safe performance. It is intended to reach all personnel present on work sites, regardless of their familiarity with our HSE program or the complexity of the work to be conducted. It can also live beyond the work site: we encourage our staff to use the tool in our offices and everyday lives, increasing awareness of possible hazards that can impact safety.



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 to four 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
- Competency
- 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 across Vermilion 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, and 2019, with this schedule providing the time-frame 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 90%, creating a solid baseline measure of staff perceptions of how they feel safety is being managed at Vermilion.

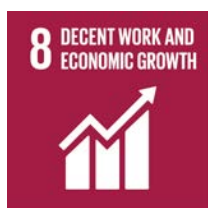
In all three surveys, all factors received favourable scores (above 3.5/5), with particular strengths in personal responsibility for safety, and the commitment to safety at the management, organization and supervisor levels. Staff identified opportunities for improvement as well, and we continue to mine the data and work to

better understand the results and use those learnings to identify focus areas.

The 2013 survey resulted in the implementation of our **Fair Culture** policy in Canada in 2014, and subsequent rollouts in our other business units, 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 HSE Perceptions Survey feedback include advancement of our Competency Programs, updates to our Event Management Practice (EMP) and enhancement of our Event Management Information System (EMIS).

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. We have focused on these areas throughout 2017 and 2018, and continued to advance these efforts in 2019.



Feature: Safety Case Revision in 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 Wandoo Facilities
- Hazards are assessed and managed to as low 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.

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 2015 and 2016, Vermilion undertook a review and update of the full suite of the Wandoo Formal Safety Assessments, the outcomes of which were accepted by the Regulator in the 2017 submission.

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 submitted our new Plan in 2016. In addition, we maintain a comprehensive spill response plan, which is aligned to our spill hazards and operating environment, and we review and test its capability requirements annually. NOPSEMA accepted our Operations and Well Construction Environment Plans in 2017 and 2014 respectively.

Both the Safety Case and Environment Plan 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 from our day to day activities. As part of our commitment to stakeholders, Vermilion provides a summary of the environment plan, including contact information, on our website. The Regulator conducts regular inspections to confirm compliance.



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 by 20 years to March 2037.



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, topsides and the Wandoo A platform.
- Vermilion develops a Basis of Analysis that presents the criteria to be used to reassess 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.







- The platform, CALM Buoy and flowlines are 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.



Environment Dashboard

SDG	TARGET	Vermilion's Contribution
	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 7.3 Reduce energy consumption	Vermilion is developing expertise in geothermal energy projects while also focusing on reducing energy consumption through infrastructure renewal in all of our business units.
	12.1 Ensure sustainable production patterns 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	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).
	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 14.2 Sustainably manage marine and coastal ecosystems	We comply with or exceed regulations regarding wastewater and marine environment management, proactively improving western Australia's capacity for oiled wildlife recovery.
	SDG 15.1 Protect, restore and promote sustainable use of terrestrial ecosystems 15.5 Take urgent action to reduce or halt biodiversity loss	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

2018-2019 Updates

Strong CDP Results

Vermilion's performance in the annual CDP scoring, which consistently places us at the top of our peer group, demonstrates the focus we have placed on understanding and managing the impact our operations and projects have on climate change. This is a significant achievement for a company of our size, and reflects the efforts from our HSE and Operations teams worldwide to increase energy efficiency and decrease greenhouse gas emissions, and to develop and implement renewable energy projects that support a circular economy.

- In 2019, Vermilion was recognized with a Leadership Level rating of A-. We are one of only two Canadian and four North American oil and gas companies to receive this designation, which puts us in the top 6% of oil and gas sector companies globally.
- In 2019, CDP released a [case study](#) focusing on Vermilion's leadership approach to the energy transition
- In 2019, Vermilion was recognized with a Leadership Level rating of A-. We are one of only two Canadian oil and gas sector companies, and are in the top 6% of oil and gas sector companies in North America and 6% globally.
- In 2017, Vermilion was recognized with a Leadership Level rating of A-. We were the only Canadian Energy Sector company, and one of two in North America and 13 globally to achieve a Leadership Level score this year (Top 3%)
- In 2016, Vermilion achieved the highest ranking possible, being named to the "A list" level. We were one of 193 companies globally, one of only five energy companies in the world, and the only North American company to make the list.
- In 2015, Vermilion was the leading energy company on the Canadian Climate Disclosure Leadership Index (CLDI) and the first Canadian energy company to achieve the top score of 100.

Focusing on Emissions Intensity

We use both absolute and intensity metrics to assess our performance (see [Performance Metrics](#)). Our emissions intensity provides an important benchmark, as it demonstrates that even as production increases, the greenhouse gas emissions of each barrel of oil equivalent that we produce can decrease.

During the energy transition, there will continue to be a place for strong, responsible oil and gas producers to provide energy, both hydrocarbon-based and renewable energy options such as geothermal, to the market. We believe our track record of reducing emissions while optimizing production sets Vermilion apart as an industry leading producer.

As an example between 2014 and 2017, we integrated the Elkhorn assets we acquired in southeast Saskatchewan in 2014. This resulted in the identification of an emission reduction target and associated projects that have contributed to a significant reduction in our emissions and achievement of the target ahead of the timeline.

In 2018, we acquired another set of assets in southeast Saskatchewan and, once again, have integrated our sustainability-focused development strategy into the integration phase of this project including an emission reduction target and related operational initiatives.

As improvements continue, the emission intensities associated with the acquired assets will continue to decline and ultimately align with Vermilion's historical production metrics and performance trends.

Overall, our global emissions intensity is once again tracking downward from 2018.

Methodology note: In 2020, we reassessed our intensity methodology and have established that basing both emissions and production on operated throughput represents the most accurate measure possible. We have adjusted previous years to reflect this, to provide consistent tracking of the same measure over time.

When comparing emissions intensity between companies, it is essential that the basis of the intensity measure be consistent, and that production mix is analyzed as additional context, because gas-weighted producers will naturally be at a lower emissions intensity than oil-weighted. In Vermilion's case, we were approximately 56% oil production and 44% gas in 2019.

Meeting Our Targets

To date, we have focused on testing our ability to meet absolute targets based on our performance via operational activities. The following targets have been critical in this process, and have contributed to our strong CDP performance.

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	Above Target: 90% reduction in annual emissions as of end 2019
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	Above Target: 110% of the target achieved as of end 2019
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 tCO ₂ e 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	Above Target: Reduced Scope 2 emissions in The Netherlands from 41% of our 2015 gross Scope 2 emissions to 2% of our 2016 gross Scope 2 emissions through the purchase of 100% green power certificates beginning on January 1, 2016, from our largest power provider in our Netherlands Business Unit. This represents an estimated 39,145 tCO ₂ e avoided annually based on 2015 emission intensity levels for purchased energy and annual energy consumption. We have continued the purchase of green power certificates in 2018 and 2019.
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: 2019 production was 77,088MWh of geothermal energy primarily from the Parentis site, with additional input from the La Teste site
Renewable Heat Energy Target	Set in 2016: Begin generating renewable geothermal energy annually in France from our La Teste ecohousing site in 2017	Achieved: ecohousing geothermal heat technology installed, 450 housing units in place, with another 100 in development
Emissions Intensity	Set in 2016: Top quartile emissions intensity (lowest emission rate on a per BOE basis) when compared against our peer group annually	On Target: Vermilion's emissions reduction initiatives and activities have resulted in top quartile performance in our peer group with similar production weightings.
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	Progressing: 27% reduction achieved as of end 2019
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.	Progressing: 31% achieved as of end of 2019.

Our Approach to Environmental Stewardship

MATERIALITY: PROTECTING WHAT'S IMPORTANT

We seek to operate our business in the most environmentally responsible manner possible.

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 standards in our operations worldwide in order to fulfill our commitment of pursuing Best-in-Class HSE and Integrated Sustainability.

Our commitment to pursuing Best-in-Class HSE is also a commitment to pursuing continuous improvement in all that we do. In addition to continuing to build processes to meaningfully track and understand our sustainability impacts, we are committed, wherever possible, to use processes that will reduce our environmental impact.

Our approach to environmental stewardship emphasizes four main areas for continuous improvement:

- Improving energy efficiency
- Reducing greenhouse gas emissions
- Increasing our water efficiency
- Caring for the land, including protecting biodiversity

MANAGEMENT

In addition to our overall **HSE Management System** and our **Risk Management** process, we have established additional management tools and processes that are 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 of our business units, and wherever needed based on conditions in our operating locations. This includes, but is not limited to, the following examples:

- **Canada:** We use references such as Landscape Analysis Tool maps to identify areas that may require special care by our operators. One of our central Alberta locations touches on an area referenced as a Key Wildlife and Biodiversity Zone, particularly 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. It is therefore important for us to minimize any disturbance to them during these critical periods. We therefore cease operations, including drilling, in this location between January 15 and April 30.

- **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 an entirely new species of marine worm being identified in the waters 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 us in 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 our development activities. This includes our Diever-02 well site, where we delay pipeline construction and other activities annually to ensure we do not interfere with birds nesting in the area.
- **Germany and Central and Eastern Europe:** Vermilion is evaluating the 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. As environmental impact assessments are a critical element of the acceptance and permitting process, Vermilion 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 **biodiversity action plan** was created to span the years 2014 to 2019. This has resulted in a project design that is predicted to be Net Neutral or Net Positive for biodiversity by 2020, including the protection and monitoring of habitats and species, and a commitment to consultation with stakeholders and other interested parties. We are now updating the plan to further this excellent work.
- **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 possible. 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 July 2017, the latest revision to the Wandoo Facility Environment Plan (which can be found [here](#)) was accepted by NOPSEMA, the regulator. The revision, which is valid for 5 years, includes the following:
 - Improvements related to produced water management
 - Water treatment upgrades, and
 - Improvements in oil spill response planning and capability
- **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: We have altered our project management framework to include aspects of sustainability and climate change – including regulatory change, water use, emissions reduction and footprint reduction to reduce ecosystem fragmentation. We begin by ensuring compliance with regulatory requirements & standards, and alignment with Vermilion's economic assessment criteria at the investigation phase of the project. Other project development factors include:

- **Employee Engagement:** Suggestions from staff via town halls and HSE district meetings. Staff feedback is taken into account by the groups responsible for management of emissions quantification and sustainability initiatives.
- **Financial optimization calculations:** Emissions reductions and other environmental stewardship impacts are driven by the optimization activities we undertake in our business units and identified at the project assessment stage for both new and existing construction. Added value and responsible, sustainable development of the resources in our operating regions 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, and improving environmental benefits associated with our activities 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 technical teams across the organization communicate with each other, collaborate on current and upcoming sustainability initiatives, and bring in technical expertise to augment project execution.



Measurement & Evaluation

MEASUREMENT, EVALUATION AND ADJUSTMENT

Internal Approach: We proactively focus on achieving Best-in-Class performance in environmental stewardship. We assess this based on a robust framework of measurement, reporting and adjustment, including the following actions:

- We have established a comprehensive climate and environmental risk matrix analysis
- We have implemented key performance indicators on environmental stewardship that we monitor monthly and report on annually
- We continually examine technology and processes, conducting operational and engineering reviews aimed at increasing efficiency, and reducing the emissions and monetary expenditure requirements at major facilities
- We analyze anticipated and actual legislative and regulatory changes and their potential impacts
- We have completed a GHG Quantification Methodologies study, and
- We updated our Carbon Liability Analysis in 2018, and review it annually.

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

Business Unit	Reporting Body	Reporting and Action Activities
All Business Units	CDP Climate	We initiated reporting under CDP in 2014, beginning with a base year of 2012.
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	Specific Gas Emitter Regulation	Reduction requirements do not apply, as Vermilion is below the threshold of 100,000 tonnes of CO ₂ e annually; our current and projected CO ₂ e reductions indicate that even with a 50% reduction in this threshold, we would still be below it. Although Vermilion meets our regulatory requirements, we maintain a detailed initiative database to identify and implement CO ₂ reduction projects where practical.
Canada	Greenhouse Gas Reporting and National Pollutant Release Inventory reporting under the Canadian Environmental Protection Act	Reduction requirements for Greenhouse Gas Reporting do not apply, as Vermilion is below the threshold of 50,000 tonnes of CO ₂ e annually; our current and projected CO ₂ e reductions indicate that even with a 20% reduction in this threshold, we would still be below it. We report under the National Pollutant Release Inventory (NPRI) requirements.

Canada	Greenhouse Gas Pollution Pricing Act	In April 2019, Vermilion's Canadian operations outside Alberta became subject to the federal Greenhouse Gas Pollution Pricing Act (GGPPA). Carbon tax rates under the GGPPA are set at \$20 per tonne of CO ₂ e in 2019 and escalate to \$50 per tonne of CO ₂ e by 2022. The economy wide carbon tax that took effect in Alberta in 2017 was repealed in May 2019 and as a result, the Canadian federal government announced in June 2019 that the fuel charge element of the GGPPA will apply in Alberta starting in 2020.
Canada	Alberta's Methane Reduction Retrofit Compliance Plan and update to Directive 039 (benzene emissions from glycol dehydrators)	A 2013 regulatory change in Directive 039 led us to plan and begin the implementation of additional elements in our facility engineering and maintenance program to reduce benzene emissions associated with glycol dehydrators; more recent changes led us to complete engineering reviews and facility updates resulting in emission reductions beyond regulatory requirements.
Canada	Saskatchewan's Directive S-10	Provides regulatory requirements for reducing flaring, incinerating and venting of associated gas, including financial penalties beginning in 2020 for methane emissions in excess of defined limits.
Europe	European Union Emissions Trading Scheme	Our European operations fall under the European Union Emissions Trading Scheme, however by and large, due to the size of our facilities we do not exceed the reporting threshold defined as facilities with a total thermal rated input capacity greater than 20MW, with the exception of our Ireland operations, which do fall within the criteria associated with the EU ETS. 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 at some of Vermilion's sustainability initiatives around the world. This upcoming shift in the cap and trade scheme will likely provide opportunities for Vermilion to generate certified energy reduction/offset credits through our geothermal cogeneration projects in France and our gas-to-geothermal and other renewable energy projects in Netherlands.
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.
Netherlands	Netherlands Long-term Agreements with Industry (MJA3)	We report operations energy efficiency and emissions information annually. Vermilion has participated in the MJA3 program in our Netherlands business unit since 2005. This has resulted in project and initiatives that have reduced our operations energy intensity by 75.7%.
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.



Approach to Climate-Related Issues

Climate Policy and Business Strategy

We recognize the importance of creating and implementing climate policy. We believe that our approach goes well beyond climate and, in fact, speaks to our business strategy, balancing the needs of the planet as expressed in the 2015 Paris Agreement, with a strong focus on shareholder return. These are not mutually exclusive. In fact, our success as a business provides us with the ability to innovate in ways that will continue to reduce our impact on the environment.

At Vermilion, we have always been committed to the priorities of health and safety, environmental stewardship, and economic prosperity – in that order. Our management of climate-related issues – both risks and opportunities – follows that approach, in which we focus on best-in-class performance, founded on our sustainability leadership within the oil and gas industry and our core values of Excellence, Trust, Respect and Responsibility. (For more information about our governance of climate-related risks, please see our [Leadership](#) section.)

We are actively participating in the low-carbon transition, guided by global initiatives that include The Paris Agreement and the United Nations Global Goals for Sustainable Development. Our focus is on supporting a stable and managed energy supply that meets the needs of our global customers and communities, while also ensuring financial and organizational sustainability. The low carbon transition requires collaboration from all parts of the energy value chain, from producers through governments, industry, communities and consumers. As a responsible exploration and production company, Vermilion is looking forward to continuing our collective efforts on climate-related initiatives while also considering the wider issues of environmental and social responsibility.

As a result, sustainability-related risks & opportunities, including those related to climate, are integrated into multi-disciplinary enterprise risk identification, assessment, & management processes. As part of our ongoing cycle of risk identification, every business unit in 2018 assessed all current identified risk cases to determine where climate-related risk is a contributing factor. These were incorporated into the Corporate Risk Review, and provided to the Board, including projected timelines & the mitigation or opportunity measures related to them. This process formalizes identification & assessment of climate-related risks and integrates them into the overall Enterprise Risk Management system, supporting the Board's oversight of climate-related risks & business sustainability. These risk cases are now reviewed and updated annually.

In 2019, we integrated the results of GRI's sustainability matrix approach (external stakeholder concerns & internal company impact) into our Risk Matrix, which resulted in the addition of Sustainability to the Risk Matrix and the Corporate Risk Register, elevating the profile of climate-related issues identification, assessment & mitigation.

Our annual CDP submission and, starting in 2018, our Annual Report, include detailed descriptions of climate-specific risks, timeframes, likelihood of occurrence, impact on the business & our approach to managing them, including potential impacts of 2°C scenarios. Our strategy to address the impact of these risks & ensure our resilience, focuses on

- **Lower carbon fuels.** Since 2012, we have shifted our production mix towards natural gas, as a cleaner burning fuel than other fossil fuels, and we continue to focus on reducing the carbon intensity of the oil and gas that we produce. This includes producing fuel that is used within the country of production wherever possible, contributing to a reduced carbon footprint associated with transportation of the fuel to consumers, and to increased national energy security.
- **Greater energy efficiency.** Many energy- and operational-efficiency initiatives go hand-in-hand, which in turn helps us to minimize our carbon footprint and reduce greenhouse gas emissions. ^{302-1 302-3 302-4}
- **Lower greenhouse gas emission intensity.** We are committed to reducing the greenhouse gas emissions associated with our production, with particular focus on methane, and we target top quartile emissions performance compared to our peer group of companies.
- **Socially responsible fuels.** 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 framework of health, safety, environmental and human rights legislation. We are committed to ensuring that our fuels are produced in the most environmentally and socially responsible manner possible, respecting worker rights and community engagement.
- **Renewable Energy.** We are continuing to pilot the production of renewable energy, including geothermal energy, for which our internal expertise in geophysics and drilling is particularly well suited. This work has begun with a focus on the geothermal potential of our produced water, which supports a circular economy model, and is expanding into other areas, including biogas and the conversion of traditional oil and gas assets to geothermal production.
- **Transparency and Reporting.** We have established a strong record of reporting on greenhouse gas emissions, energy usage and other key environmental metrics. This data is helping us to understand our opportunities for improvement, and we will continue to use it to determine emissions and energy reduction targets.

How We Manage Climate-Related Initiatives

We have been working to analyze science-based target setting in relation to our operations in critical areas identified by both internal and external stakeholders, including energy use, greenhouse gas emissions and water use. One issue is that a decarbonization pathway for the oil and gas sector has not yet been published by the Science-Based Targets initiative, so we are undertaking our own research into this area. Understanding that organizations often progress along a continuum of action, we have achieved the following milestones:

- **Understanding our current situation:** our sustainability reporting since 2012/2013 highlights the increasingly sophisticated and streamlined data collection process we are using internally, and continues to provide a platform from which to assess current levels, trending and comparisons to industry peers.
- **Setting an internal carbon price:** We have established location-dependent **carbon pricing** schemes for Scope 1/2 emissions as part of our risk management process, looking at the three most likely scenarios to impact our business in the next 5 years (low, anticipated and high carbon pricing). Our rationale is to determine the extent of the potential impact of carbon costs to Vermilion's financial performance and competitiveness, and where the risk exceeds thresholds, plan and implement mitigation measures. We review carbon pricing at the corporate level based on in-country results.
- **Engaging in scenario analysis** based on a 2°C warming limit, and the impacts related to it, including:
 - **Physical:** temperature changes impacting our global locations, increasing severity of storms, rising sea levels, etc.

- **Regulatory:** carbon pricing, carbon sequestration programs, oil and gas exploration and production limits, etc.
- **Changing consumer behaviour and technology:** electric vehicles, replacement of coal by natural gas for electricity generation, etc.

At a minimum, on an annual basis, and more frequently when required, Vermilion examines and reassesses the risk associated with climate change and the potential effects on operations globally. This review considers the potential impact of a 2°C scenario. Vermilion understands the complex nature of the energy value chain and as an energy producer, our modelling focuses on the primary energy component of the energy value chain. Scenario analysis is driven by requirements from our Board of Directors, who have a direct link to the process. Our inputs come from both our Business Units and Corporate groups including, but are not limited to, prospect inventory, development schedule, economic inputs including carbon liability, assessment of market dynamics, energy and carbon efficiency, energy generation infrastructure optimization, regulation/policy development, and distributed energy production. Our assumptions include, but are not limited to, the ongoing impact from further commitments from governments supporting a 2°C scenario, stabilization of carbon pricing in the medium to long-term (cost varies by region), and value associated with carbon intensity of energy. The outcomes of our scenario analysis are used to inform our business strategy and resource planning. As society moves toward achievement of a 2°C world, the requirement for responsible, reliable energy to fuel the energy transition will support organizations like Vermilion through a competitive advantage. In addition, in 2019/2020, our Board of Directors and the Company's senior management took part in a robust scenario analysis, examining two key scenarios from the World Economic Forum that bring together the work of significant contributors in this area, from the International Energy Agency to Carbon Tracker. These scenarios compare a Gradual and a Rapid transition to low carbon, with the latter meeting the aims of the Paris Agreement to limit global temperature increases to 1.5°C to 2 °C, with 1.5 °C preferred. The results of this analysis are informing our work on sustainability strategy through 2020, including our climate-related emission reduction targets.

- **Increasing low carbon products:** Our production of natural gas is approximately 44% of our total production, compared to 33% in 2012. We recognize that natural gas – which provides the market with a power generation alternative that achieves greater energy efficiency and up to 45% cleaner burning than coal-fired electricity – is an important part of the transition to lower carbon energy. For example, if the natural gas produced by Vermilion on an annual basis in Canada were used for power generation as opposed to coal-fired power, the consumer would be able to avoid more than 2,913 ktonnes of CO₂e. We continue to explore additional projects in this area, including using flared gas to produce electricity at our facilities to offset our power consumption.

In 2020, we realized strong pricing for our Wandoo crude due to its low sulphur content – for example, averaging a premium of C\$21 per barrel above Dated Brent during Q2 2020. The demand for this blend of crude has increased under the new IMO 2020 regulations, which require marine vessels to either install sulphur scrubbers or run low sulphur fuel oil.

We also recognize the impact of Scope 3 emissions, which are those embedded in our products and generated when those products are combusted or otherwise used by the end user. Again in Australia, we benefit from reduced Scope 3 values, because a significant portion of our oil is used by Asia-Pacific based lubricant businesses.

- **Comparing our performance to industry benchmarks:** Our emissions reduction initiatives have resulted in Vermilion having a top quartile sustainability performance when compared against our peer group, as measured by key third-party agencies, including CDP, SAM, Sustainalytics, MSCI, ISS QualityScore, and Vigeo- Eiris.

- **Strategic use of carbon offsets.** While carbon offsets do not reduce emissions, they can provide important positive contributions to international efforts to counter global warming, particularly if the projects advance a low-carbon transition, are incremental – that is, they would not have happened without the funding from the offsets, – and do not replace genuine efforts to reduce emissions.

Air travel: To reduce air travel-related emissions, we avoid travel wherever possible, making extensive use of audio-visual options for global meetings, and choosing economy over business class as part of our travel policy. In 2019 and 2020, Vermilion began contributing to Tree Canada's "Grow Clean Air" program as a way to reduce the impact of air travel that we could not reasonably avoid. Our funding helped to plant some 4,500 trees in Canada, supported Tree Canada as a not-for-profit organization, and engaged our staff in planting some of those trees in their communities.

Supply chain: Our IT department has automatically set our printing to reduce impact, via double-sided and grayscale printing. Our Calgary printing partner contributes to the ReLeaf program, which plants trees to offset our remaining office printing.

Anticipating changes in regulatory requirements:

- In April 2019, Vermilion's Canadian operations in Saskatchewan and Manitoba became subject to the federal Greenhouse Gas Pollution Pricing Act (GGPPA). Carbon tax rates under the GGPPA were set at \$20 per tonne of CO₂e in 2019 and escalate to \$50 per tonne in 2022. The economy wide carbon tax that took effect in Alberta in 2017 was repealed in 2019 and, as a result, the fuel charge element of the GGPPA will also apply Alberta starting January 2020. In December 2019, the Canadian government announced that Alberta's newly created TIER regulation met the federal stringency requirements and, as such, the federal output-based pricing system (OBPS) would not apply in Alberta. Similar to the federal OBPS, the Alberta TIER system applies a tax rate of \$30 per tonne of CO₂e and commenced January 2020. We continue to monitor these quickly changing regulations in our Canadian operations to ensure that we can reduce tax exposure to the largest extent possible through improving the emissions profile of our assets.
- Update to Directive 039 in Alberta. This regulatory change led Vermilion to complete engineering reviews and facility updates estimated at \$1MM by the end of implementation in 2018. This will result in Criteria Air Contaminants reductions beyond regulatory requirements, and is a good example of how we are staying ahead of changing regulations.
- Participating in the MJA3 (Term Agreements on Energy Efficiency) programs in The Netherlands since 2005, with the result that our operations are 76% more energy efficient than our base year.
- Ongoing monitoring of Directive S-10 in Saskatchewan, which provides regulatory requirements for reducing flaring, incinerating and venting of associated gas; this augments the commitments we have made to reduce emissions associated with flaring and venting following the acquisition of infrastructure with a high emissions profile in 2014 (Elkhorn) and 2018 (Spartan).
- The December 2017 approval by the French parliament of their Climate Plan prohibits the issuance of new oil and gas exploration concessions and limiting the renewal of existing production concessions beyond 2040. Based on our ongoing review of this emerging legislation and its final details, we were able to conclude that we do not expect these new laws to have a material impact on our current production profile.

New Facility Construction: We employ new and efficient technology that adapts to changing requirements and has the potential to decrease our environmental impact. This includes

- Canada Business Unit: In 2014 and subsequent years at a number of our new wells, we installed solar power as a primary power source, augmented with thermoelectric generation (TEG) for when the region lacks the necessary daylight to produce the energy required (seasonal augmentation)
- Corporate Headquarters: Our Calgary headquarters is located in a LEED Platinum office building, with our offices certified LEED Gold, including low-flow appliances and plumbing fixtures, Energy Star-certified computers and appliances, recycled content in furniture and carpet, and active participation in the building's Zero Waste program.
- France: Vermilion constructed our Parentis offices to comply with the French Thermal Regulation RT2005, which is focused on reducing the greenhouse gas load by limiting the energy consumption of buildings.

Retrofit of Existing Construction:

- Ambes, France: In 2017, we replaced traditional 300W lighting systems in our crude oil storage facility with 98W LED bulbs. This provided better lighting, an increased life cycle from 6,000 to 60,000 hours, and a decrease in energy consumption of 6,000 kWh, or 66%. G4-EC2



[1] Based on 2019 gas production in Canada and a carbon intensity of 90.87 grams CO₂e per MJ for a coal-fired power generation dominated energy grid vs 49.88 grams CO₂e per MJ for natural gas power generation; National Energy Board

Approach to Methane Emissions Reduction

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 an important element, 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 reduce the financial expenditure associated with methane leak detection and the updating of older infrastructure that is prone to sources of methane.

Measures being examined by governments in the regions where Vermilion operates have the potential for a significant impact on the marginal abatement cost curves associated with carbon reduction projects that Vermilion has looked at in the past, as well as future projects. The impact of these cost of carbon measures will result in increasing the economic viability of methane (and CO₂e) reduction projects. Understanding that this is a developing area, we have teams in each business unit who are responsible to monitor regulatory development and share learnings with other business unit teams, as well as corporate groups. We continue to proactively look at our operations to determine areas where we can prevent methane releases and have a positive impact on our Scope 1 emissions and our Integrated Sustainability business pillar. We believe that we have positioned ourselves proactively and have therefore mitigated the financial impacts of 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, flared emissions (understanding that flaring typically achieves 98% combustion efficiency), storage emissions and process/instrumentation emissions.

Vermilion has a robust emissions quantification program 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:

- CBU: We currently perform limited LDAR that is targeted (for example, identifying leaks during a turnaround) as opposed to a gross percentage of our assets on an annual basis. In addition to a targeted LDAR program, we currently perform LDAR dominated by Operations identification (qualitative). The scope of this work covers over 90% of our assets in Canada on an annual basis, with over 340,000 site visits per year (estimated). Targeted identification such as identification of leaks during facilities work is also built into all turnaround activities within the CBU.
- FBU: Quantitative LDAR programs vary annually. As this is an oil-dominated asset, the volume of natural gas and associated CH₄ emitted is low. A specific focus with LDAR is the VBH site as we have more gas associated to oil; a specific fugitive emissions audit was carried out at VBH in 2017 with no leaks detected.

- NBU: Netherlands has a robust LDAR program, with 25% of the accessible flanges and potential leak points screened quantitatively on an annual basis.
- ABU: 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.
- USBU: The USBU has a comprehensive leak detection and repair program that includes initial and semi-annual monitoring for fugitive emissions using a thermal camera at all well sites that are subject to OOOOa and/or Wyoming air permit requirements. In addition to point source identification, Vermilion has permanently mounted monitoring equipment at our major facilities that check for the presence of natural gas outside of the process on an ongoing basis.
- GBU: All operated oil assets are thoroughly checked at least twice a week. In our operated gas assets all well sites and facilities are checked 5 times per week. During these checks all visible and accessible flange connections are visually inspected for leaks. Field pipelines and transportation pipelines (both in our operated oil and gas assets) are being checked once a week along their routes in habituated areas and once per month in non-habituated areas. In addition, the transportation pipelines (both oil and gas) are helicopter surveyed on a biweekly basis.
- IBU: 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.

This demonstrates our commitment to methane detection and reduction, and we continue to examine areas where we could further improve.

OPPORTUNITIES FOR CHANGE

In Canada, LDAR has been mandated federally and provincially. Our Canada Business Unit is therefore in scope for an expanded methane LDAR program. This will form the basis for a country-specific carbon emission inventory, which will enable us to identify the areas with the largest potential return on investment related to emission reductions per unit of expenditure.

The EDF report further recommended placing an economic value on emissions. While applying the realized cost per business unit as defined in the 2016 annual report would indicated a value of approximately \$400,000, we would caution that this does not adequately account for the quality of emissions and the current technical challenges in recovering the 2% of partially combusted flared gas. We will continue to assess the practicality of accurately measuring economic value in this regard.

Part of the Vermilion advantage is our track record of being an industry leader in quantification and disclosure of the carbon emissions associated with our operations. While some initiatives, and how we complete them, are not disclosed to support Vermilion's competitive advantage, we believe that this portion of the energy sector has benefitted and will continue to benefit greatly from open sharing of ideas.

One recent example is the additional focus that Vermilion has placed on **reducing our flaring in our southeast Saskatchewan assets**, through infrastructure construction and the conversion of a former waste stream into a

product stream. In addition, we have successfully converted a flare in our Parentis, France location to a **highly effective incinerator**. We are continuing projects of this type, as they are proving successful in achieving overall emission reduction targets in these assets, and they have enabled Vermilion to significantly reduce our emissions intensity while increasing production.



Feature: Energy and Emissions Reduction Projects

The following projects have long-term environmental benefits, including energy and/or emissions reductions. ^{302-4 305-5}

- Reducing Flaring and Venting in Southeast Saskatchewan
- Carbon Capture and Storage in Weyburn, Saskatchewan
- Carbon Offsets in Canada
- Purchase of Green Power in Netherlands
- Certification under ISO 50001 in Germany
- Incinerator Technology Upgrade in France

Reducing Flaring and Venting in Southeast Saskatchewan

In April 2014, we closed the purchase of Elkhorn, a small private company with light-oil assets in Southeast Saskatchewan. Following the purchase of these assets, Vermilion has made important improvements that reflect our focus on Safety, Integrated Sustainability, and operational excellence, based on our target to reduce flaring and venting from this operation by 50% by 2020.

Beginning in 2015 and continuing into 2019, through the construction of new infrastructure, operational changes and increased infrastructure runtimes have resulted in:

- Reduced absolute emissions/year in these SE Saskatchewan assets by approximately 90% (18,373.2 tCO₂e / base year 2014 emissions of 193,399.7
- Above-target delivery of our 2020 target of a 50% reduction over 2014 emissions.
- Reduced absolute methane emissions/year from these assets by 9,289 tCO₂e methane
- Above-target delivery of our 2020 target to reduce methane emissions by 50% over the baseline 2014 year of 16,758 tCO₂e methane.



In May 2018, Vermilion completed the acquisition of Spartan Energy Corp., a publicly traded company headquartered in Calgary, Alberta. A major addition, the acquisition of Spartan resulted in an approximately 30% increase to our Canadian production relative to 2017 totals. Similar to the 2014 Elkhorn acquisition, a target was set in 2018 to reduce the flaring and venting emissions associated with the Spartan assets by 50% by 2024. This will be accomplished through a variety of initiatives including the construction of new infrastructure, tying gas production into gathering systems to reduce flaring, installing vapour recovery units to mitigate fugitive emissions, and shutting-in uneconomical assets.

Infrastructure changes and performance optimization activities undertaken in 2018 and 2019 have resulted in:

- Reduced absolute flaring and venting emissions/year by 99,970.6 tCO₂e
- 26.7% reduction of flaring and venting emissions/year compared to our 2024 target of 50% reduction over 2018 emissions (374,515.8 tCO₂e)
- Reduced absolute methane emissions/year by 81,591 tCO₂e
- 31% reduction of methane emissions/year compared to our 2024 target of 50% reduction over 2018 emissions (163,182.3 tCO₂e methane).

It is important to note that these assets would have been in production regardless of whether we were the operators. Our philosophy is that we don't shy away from bringing assets with higher emissions profiles into the company, because we seek to improve those profiles. As a result, once we take over assets that were previously in production with less efficient and less emissions-conscious companies, we substantially reduce emissions. More information on this can be found in the CDP Case Study on Vermilion -- How an oil and gas company survives the low-carbon transition -- [here](#).

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, Canada. This is one of the largest carbon capture, utilization and storage projects in the world, bringing in CO₂ from a utility in North Dakota to use in an enhanced oil recovery (EOR) method of production. The CO₂ then remains permanently sequestered in the field.

It is important to note that we do not claim the carbon sequestered as credits against our own carbon production, because the US utility - as the organization responsible for creating the carbon emissions - has already claimed the credits, in accordance with globally recognized carbon accounting methodologies. However, we are proud to play even a small role in this groundbreaking project. In 2019, our partnership accounted for 2,045 bbls day, or approximately 4% of our total production on a financial control 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 this year: 380 Tonnes, which is equivalent to taking 82 passenger vehicles off the road for a year.

Purchase of Green Power in The Netherlands

In 2016, Vermilion began purchasing 100% green power from our largest power provider in our Netherlands Business Unit, resulting in a 97% reduction in Scope 2 emissions in NBU from 2015 to 2016. This represents an estimated 39,145 tCO₂e avoided based on 2015 emission intensity levels for purchased energy and 2016 energy consumption. The Netherlands accounted for approximately 41% of Vermilion's gross Scope 2 emissions in 2015, and for less than 2% beginning in 2016. We have continued this program through the year 2020.

Incinerator Technology Upgrade in France

As part of Vermilion's operational excellence, our processes are designed to optimize the conservation/capture of energy and its use. 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, and helped us be a good neighbor to the community.

Given the proximity of the glass windows of the tomato greenhouse that is co-located with our battery, it was particularly important to find a solution that avoided strong vibrations. Our installation of the new incinerator, along with new piping, scrubber and safety fencing in the incinerator area has resulted 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.

Other Related Projects:

- Partnership with BlueSource to install a HB2LB Pneumatic device in Canada with an estimated reduction of 40,600 tonnes/yr CO₂ equivalent.
- An ongoing program in Canada 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.
- Piloting the use of an ORC turbine, in which a turbogenerator works as a steam turbine to transform thermal energy into mechanical energy (France).



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 residential neighbourhoods in two 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 has 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.

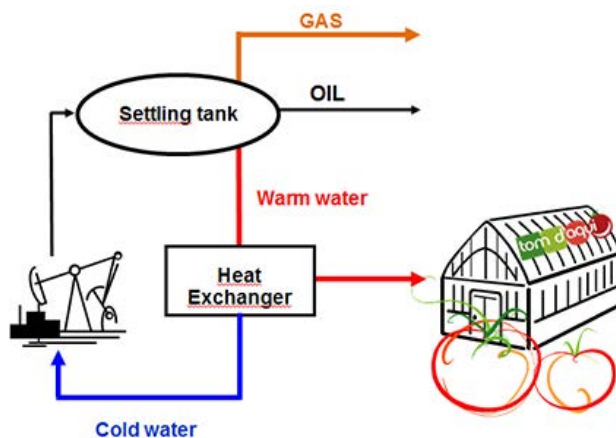
We began with tomatoes

It was the mayor of Parentis who 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. Today, including our direct impact on Tom d'Aqui, this sector represents:

- 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.

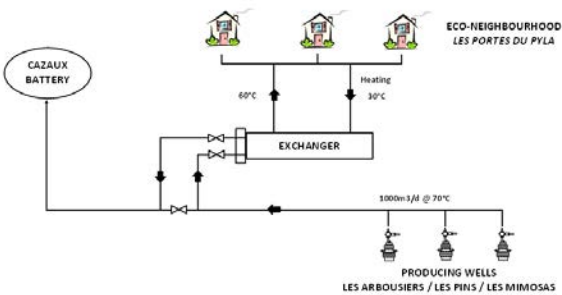
Moving from Agriculture to Housing, in La-Teste

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.



Feature: Renewable 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 renewable 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.

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. We signed the Green Deal in 2017 as an important step in establishing the regulations, technologies, standards and understanding needed to develop ultra-deep geothermal energy. Companies involved participated in pilot projects in various regions (Heerenveen for Vermilion), with the intention to develop those projects by 2020.

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. This means that our consortium was not able to sign the cooperation agreement that marks the next phase of the Green Deal program. We are proud of what has been achieved in a short time within the partnership in the Green Deal UDG, however, and are pleased that the other six consortia will continue the program. 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 currently on hold, while the technical and economical aspects are further analyzed.

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.

Biogas Production

In Harlingen, we are investigating the production of biogas from low-grade biomass such as verge grass, manure, straw and wood. This project involves cleaning and upgrading the biogas to green gas at our Harlingen Treatment Centre, with the potential to process and dry the green gas to produce fertilizer.



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.

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 dust control, drilling, well completion (fracturing in North America only), voidage replacement, and enhanced oil recovery.

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. Long-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 (and hauling) 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.

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 back into our risk/opportunity management process to ensure we have a sound data foundation to support responsible decisions in our operating areas. 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 (98%) are produced water associated with conventional oil production, primarily within the Canadian Business Unit. 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 ("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 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 are also conducting 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 in 2019.

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. In Vermilion's operations, we use fracturing only in some semi-conventional clastic reservoirs. We do not develop shale or other unconventional reservoirs. As a result, our semi-conventional development activities are significantly less frac intensive than shale development, requiring much lower volumes of water. ³⁰³

Approximately one-quarter of the water we pump during a Canadian frac, for example, returns immediately during flowback operations. We then employ fracture fluid technology that lets us re-use this flowback water on subsequent wells. We are also assessing where we can adjust completion schedules to optimize water use, and recycle flowback water to reduce overall make-up water requirements. Finally, we are also looking at the potential of using produced water (non-potable water produced with oil and gas) from our operations to replace other water sources.

Groundwater Protection and Hydraulic Fracturing

We operate in accordance with strict regulations and Industry Recommended Practices (IRPs) that protect groundwater 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. Examples of this include research and development to implement technology that allows for the treatment and re-use of advanced gel chemical fracture flowback fluids. This approach reduces the freshwater needed to complete wells and the volume of water disposed of via deep well injection.

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 of our operating areas, water use is highly regulated, and 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. All water volumes are measured using a combination of meters and volumetric calculations. The data is tracked and analyzed to facilitate regulatory reporting (as required) and internal governance and sustainability initiatives.

More than 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.

Depending on the circumstances, 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 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.

As an organization, the majority of Vermilion's water withdrawals (98%) are produced water associated with conventional oil production. The majority of this volume (85%) 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 (constituting 14.5% of Vermilion's water discharge) is metered as part of the discharge process.

The remaining 0.5% 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.

In 2019, we aligned our water data reporting with CDP's methodology for water security, and we are currently benchmarking key data, including freshwater intensity, to assess further development of our water program.



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 of the initiative 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 the crossings in the operating area predate Vermilion's operating tenure.

As part of the program, Vermilion has completed an initial, screening level assessment of crossings within its Western Alberta operating area and developed a staged, risk-based prioritization scheme for further assessment and remedial response. The implementation of remedial measures related to several crossings has been completed and the program remains ongoing. Detailed hydrotechnical analysis and engineering design related to a flood (scour) damaged crossing in Northern Alberta was also undertaken with mitigation measures pending.

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 both private and public stakeholders to discuss and define the main priorities of the region's water policy and the protection of its natural aquatic environments. In 2014 our Ambès superintendent was elected to the committee for a six-year term. 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 from the French coast, our operations on and near Parentis Lake are benefiting from our boat, the Pelican. Acquired in 2015, the boat is used for our lake rounds, and is increasing 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 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 Wandoo Facilities
- Hazards are assessed and managed to as low and 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 a minimum frequency of 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 comprehensive spill response plan, which is aligned to our spill hazards and operating environment, and review and test its capability requirements annually. NOPSEMA accepted our Operations and Well Construction Environment Plans in 2014 and 2017 respectively. As part of our commitment, Vermilion provides a summary of the environment plan, including contact information, which can be found [here](#)).

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.



In 2016, we received an opportunity to support an independent scientific study conducted by the University of Western Australia (UWA) to test hypotheses on fish productivity around platforms (rigs). Vermilion Australia

agreed to the partnership because the study 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.??

To date, 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 (BRUVS); these identify fish gatherings in relation to distance from the platform. Existing remotely operated vehicle (ROV) video data has also been incorporated to further define this novel ecosystem. Combined, these analyses will contribute to the evidence for our environmental decommissioning approvals.



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. To put this in perspective, a single vertical well has 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 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-used existing well sites. During our 2014/2015 drilling program, we drilled nine wells, six of which were from pre-existing well sites, thus reducing the need for the construction of new sites or pipelines. In addition, all of 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 first 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 Wandoos to **protecting ungulates** such as deer and elk during critical winter months in Alberta. 304-1

In France, thanks to a request from a local beekeeper, honey is now harvested from our Saint-Méry battery site. It turns out that 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'arrières 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 Australia, Vermilion has 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 Asset Integrity 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.

An example of our focus is the program our Canada Business Unit undertook in 2017, when it reduced spills from 164 m3 in 2016 to 14 m3 in 2017. This contributed significantly to the lowest spill volume since we began recording in 2004 (when Vermilion was less than one-third its current size), and is the result of activities that include assessments of infrastructure, process review and training for staff and contractors. In 2018 and 2019, 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 have increased. We are currently undertaking a program of assessment, prioritization and mitigation to once again reduce the numbers and volume of spills. In the meantime, our legacy base operation continues to reduce release volumes.






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 it is permanently sealed and taken out of service) and reclamation (returning the land around the well to how it looked and was used before development).

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 to return it to its previous condition, 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.



Communities Dashboard

SDG	Target	Vermilion's Contribution
	1.2 Reduce at least by half the proportion of people living in poverty	Homelessness and Poverty 2019: The Vermilion Energy Family Centre at Wood's Homes in Calgary has supported 47 families and a total of 194 children, youth and their parents / caregivers since opening in June 2015. 2009-2018: Vermilion is proud to have been the co-presenting sponsor for Hockey Helps the Homeless for 11 years. In 2019, \$300,000 was raised supporting four local charities, YW of Calgary, Inn from the Cold, Boys & Girls Clubs of Calgary and Habitat for Humanity, and impacting the lives of hundreds of families.
	2.1 End hunger and ensure access by all people to safe, nutritious and sufficient food	Homelessness & Poverty Our funding focus on homelessness and poverty encompasses several programs that support ending hunger, including our Days of Caring : Canada 2019: Through our Healthy Start Program, we are ensuring children and youth at 24 schools in our operating areas have access to healthy, nutritious food, helping fuel their bodies and their minds. Denver 2019: through three Days of Caring staff filled hamper orders for the Food Bank of the Rockies feeding more than 10,000 people
	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 Ireland we are proud to support Mayo Community Incident Rapid Response, helping ensure volunteer medical personnel respond to critical illness or significant injury emergency calls.
	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 supporting community-based conservation initiatives. Through this program, our donations will help protect the ecosystems and biodiversity that are important to the communities around our operational areas. In Australia we are proud to support Black Cockatoo Preservation Society, supporting the care and rehabilitation of native black cockatoo birds.
	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 major business units.

Progress on Commitments

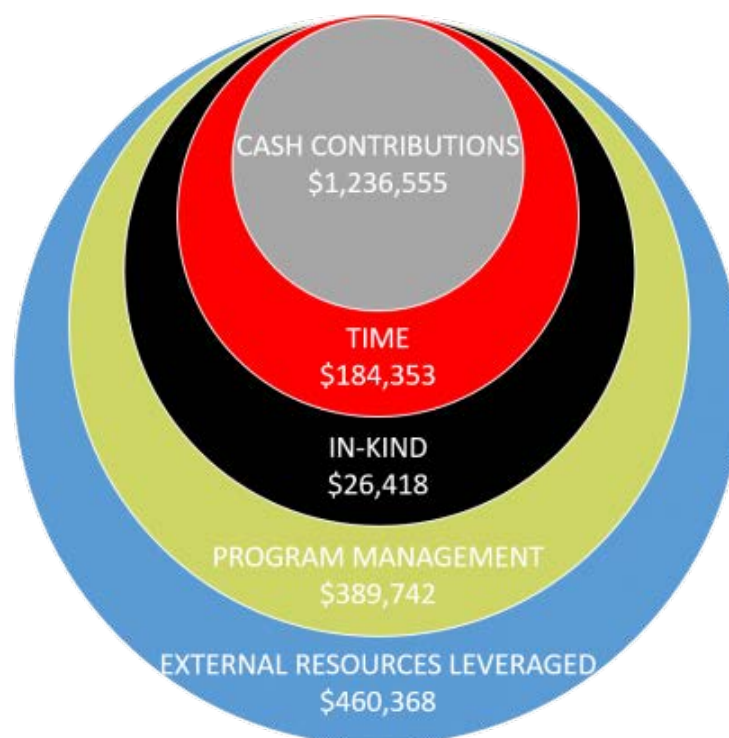
TARGET 2018	TARGET 2019	TARGET 2020
Develop and launch Ways of Caring program in our Germany Business Unit. 100% Achieved	Develop and launch Global Funding Initiative to support environmental stewardship in all business units. 100% Achieved	Working to expand “investing in our communities” to showcase the wider positive economic impact that our operations have 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 during working hours

External resources leveraged: staff donations and partner contributions



TOTAL VALUE OF COMMUNITY INVESTMENT IN 2019
\$2,297,436

Give Time

- 186 grants
- 29,338 staff hours volunteered during non-working hours
- \$29,872 in grants

Give Together

- 50 Days of Caring
- 3,021 staff hours for 41 organizations during working hours
- Value of \$184,353

Notable Highlights:

Stitching Present in the Netherlands

In 2019 Vermilion launched a flagship partnership to support Stitching Present in The Netherlands. Connecting organizations and volunteers with individuals who live in poverty, social isolation or have a disability, Stitching Present helps communities flourish. Our support contributes to our community investment focus on Homelessness & Poverty.



What our staff told us about the program in 2019:

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 told us about the program in 2019:

"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 Communities

Our Approach

Vermilion focuses on a shared value approach to strategically investing in our communities. This is embodied in our mission statement: to deliver superior rewards to investors, employees, partners and the communities in which we operate.

Why This Matters

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 there 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 can do the most good for all.

Our Management

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.

Measurement

Funding Metrics

Vermilion has developed a sustainable 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, it directly links company activities with investment in our communities, and it leads best practices in the community investment sector.

People Metrics

We link our community investment work directly with our staff satisfaction metrics through our annual, 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 United Way 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 quarterly 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. For example, we updated our Ways of Caring framework in 2013 to include our four current pillars, we established our sustainable funding model in 2015, and we launched our Municipal Linkage Program in The Netherlands in 2016. We also launched an online third-party application in 2016 to streamline grant application administration for both Vermilion and our community partners.

In 2017, we assessed our programs in light of the Sustainable Development Goals, identifying opportunities to drive key targets within the Goals that are aligned with our Ways of Caring. This work highlighted the importance of our approach to SDG 17.17, on partnerships.

In 2017 and 2018 we launched two global community investment programs, providing us a platform to create meaningful change in a priority area across our operations.

Volunteering Around the World

Calgary, Canada

We were pleased to take the power of our volunteer efforts to seven organizations in 2019 for our Corporate Day of Caring - ONE DAY, MANY PARTNERS. 139 staff and 3 family members - invested 493 hours to provide landscaping, sort clothing donations, remove invasive plant species, prepare meals and conduct senior maintenance and wellness checks.



This year, our partners were: Calgary Drop-In Centre, Friends of Fish Creek Park Society, Ronald McDonald House, Silvera for Seniors, The Alex Community Food Centre, Women in Need Society, and Wood's Homes.



Drayton Valley, Canada

In July 2019, 14 staff from Drayton Valley volunteered with the Nature Conservancy of Canada at Coyote Lake to help clear trails and install new trail signage at this popular hiking destination.



Saskatchewan, Canada

In 2019, staff in Saskatchewan participated in 12 Days of Caring across many of the small communities where we have operations. These include lending a hand at the White Bear First Nation community clean up, picking up roadside litter and hosting a BBQ for all the volunteers and assembling wood storage boxes and repairing floors and walls in buildings damaged by flood in Oxbow's Woodlawn Regional Park. These days are a great way for us to show our commitment to our communities, and get to know our neighbours.



The Netherlands

A flagship partner in The Netherlands, Stichting Present was also the recipient of our volunteer manpower on July 19, 2019. Staff took time out of the office to help out 4 families by cleaning out a yard and home of a hoarder, supporting a widow to do garden work, painting walls and the ceiling for a man who uses a wheelchair, and building a brand new shed for a refugee family.



Mayo County, Ireland

Encouraging students in the Erris Area to engineer "the Ireland of tomorrow", Vermilion staff hosted a day of information and activities in Belmullet during Engineers Week in March, 2019. 65 students and teachers from three local secondary schools were introduced to the many types of engineering involved in delivering Corrib Gas.



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Perth, Australia

In December 2019, staff from our Australia Business Unit volunteered with St Bart's House, tackling projects at the Older Women's Service housing unit, including painting handrails for all the outer stairwells. The day culminated in a celebration that recognized 10 years of partnership between Vermilion and St Bart's.



Paris Basin, France

In March 2019, employees helped clean up the Ancoeur Rivulet in Blandy. Partnering with the Association of the 4 Valleys of Brie, the team filled garbage bags over a 7-kilometre area.



Denver, Colorado

The Food Bank of the Rockies in Denver is almost 100% volunteer driven and provides hampers for individuals and families struggling with food security. In 2019, our staff volunteered on three separate occasions helping address issues of food scarcity.



Hanover, Germany

In May 2019, staff from Hanover gave their time to landscape the garden of Seniorenbeirat Rhauderfehn, an organization that works to address senior isolation by providing a place for conversation and support for repairing items. A lot of hard work and effort went into the beautification project that delighted the seniors.



Key Community Investment Partnerships

Corporately and around the world, 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
- Global Environmental Stewardship Program
- Canada
- Australia
- Central & Eastern Europe
- France
- Germany
- Ireland
- Netherlands
- United States



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. These include the following organizations – we are grateful for their service each and every day.



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.



Over the last three years, more than 90 individual families have participate in the program. In

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.

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



2019 Update:

In 2019 we made an additional 3-year commitment to support 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. Vermilion is pleased to be continuing our support subsequent to the completion of our initial flagship funding.

Aura Program & Camp fYrefly, supporting LGBT Youth

At Vermilion, 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 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.

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.

Through our investment, 16 Campers were provided with the opportunity for a transformative experience in attending Camp fYrefly Alberta 2019. The funds directly supported the full camp experience: accommodation, transportation, food and supplies for a variety of workshops and events. Similar support has been provided to ensure youth can attend camp in Saskatchewan.



YW Employment Resource Centre

We are proud of the role we played in establishing the YW of Calgary Employment Resource Centre (ERC), which serves a diversity of women from different cultural backgrounds, a variety of career streams and a full assortment of education and training needs. Its intentions are:

- To empower women, and be a meeting place to learn and network,
- To provide career coaching, counselling, and mentorship,
- To be a place for clients to assess their skills and strengths, and set and realize their goals
- To increase employability skills and social inclusion
- To reduce job loss and prevent recidivism of unemployment and underemployment.

Poverty affects 1 in 10 Calgarians directly, and all of us indirectly. Across demographic groups – such as indigenous peoples, visible minorities, people with disabilities, single parents and recent immigrants – women experience higher rates of poverty than men. Annually, the YW supports on average more than 6,700 women, children and men through shelter, housing, counselling, basic need items, parenting supports, childcare, language and employment skills development programs and services.



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 Calgary Zoo is connecting audiences of all ages with nature and inspiring actions for wildlife conservation.



Vermilion began its partnership with the YW of Calgary in 2007 when we provided a \$2.5 million donation, along with \$1.5 million raised by Vermilion's founders, board of directors and staff, to create the Vermilion Energy/YWCA Calgary Skills Training Centre. In 2013, recognizing the changing economic and employment climate in Calgary and a critical need to serve greater numbers of women, the Skills Training Centre transitioned to become the Employment Resource Centre. While our formal partnership has now concluded, we are proud of the significant impact this partnership has had on our community, and the foundation we helped establish for employment resourcing.

2019 Update

In 2019 the Calgary Zoo was able to offer programs to 15 schools, impacting 585 students and 123 teachers. In addition to our financial support, we bring our people power to our partnerships as well. In March 2019, our HR team helped the Calgary Zoo move the substrate from area of the panda exhibit to another.

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.



Vermilion began a partnership with the 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.

STARS Air Ambulance (Global Emergency Responder Program Partner)

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.

Nature Conservancy Canada (Global Environmental Stewardship Program Partner)

Supporting both the Hopkins Nature Destination in Alberta and the Hole in the Wall property in Saskatchewan, Vermilion will help protect and restore vital natural habitat and provide opportunities for Canadians to get outdoors and explore these amazing ecosystems.

Early Childhood Development Centre - Drayton Valley



Since 2012, Vermilion has committed financial and volunteer support to our V-Powered Kids partnership with the Town of Drayton Valley's Early Childhood Development Centre (ECDC). The program supports the critical before-school hours with a staff member, breakfast that the kids help prepare, and transport to school, along with additional recreational programming for families after school and in evenings. In 2013, our funding also began supporting an Early Childhood Coach who will assist everyone in a child's environment, from families to childcare staff.

Quality early childhood development programming has been cited as a key component of effective poverty reduction strategies. The Drayton Valley ECDC serves a number of low-income and at-risk families, and our support has enabled families to take part in programming that they would likely not be able to afford otherwise.

In addition, our partnership has developed over the years to include building a natural fence around the playground, hosting pancake breakfasts for the community, and funding recreational activities such as Zumba. The town of Drayton Valley recognized this combination of support from staff and the company when they presented the annual Corporate Service Award to Vermilion in 2013, recognizing community members that have dedicated themselves to making a difference to this central Alberta town.

"When you support children, the difference you can make is just exponential," says Bernice Taylor, the Centre's Program Manager. "This is a child who walks through the school doors and is able to learn, a child who feels like they belong, a child who's not in the child justice system. It's empowerment – I think we empower the children here to be very confident, to say 'I can be anything.' "



United Way of Calgary and Area

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
Calgary and Area

United. Building a great city for everyone.

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 and a 2013 Spirits of Gold award in the category of Leading the Way (under 500 employees). Spirits of Gold is United Way's recognition gala, celebrating the spirit and generosity of the people, agencies and workplaces that displayed outstanding leadership and dedication during United Way's annual Campaign. United Way also recognized our 2015 workplace campaign's backpack mountain as one of its "Top 5 Campaign Moments" – our staff filled some 200 backpacks for Inn from the Cold, a local charity that focuses on supporting families that are homeless.

2019 Update:

Since 1996, Vermilion has contributed more than \$4.2 million to support local non-profit organizations and social programs through the United Way.

Our 2019 campaign raised over \$200K, with more than 90% staff participation through pledging, events and contests. We are proud of this achievement, particularly its impact on the community. This donation will provide more than 100 Calgarians access to basic needs, including food and shelter, ensure more than 400 children and youth are empowered and successfully transition to adulthood, or connect more than 600 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

St Bart's

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.

2019 Update

In 2019, we celebrated 10 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 (Global Emergency Responder Program Partner)

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 (Global Environmental Stewardship Program Partner)

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 (Global Emergency Responder Program Partner)

CEE selected the Croatian Mine Action Centre, an organization that carries out demining operations in areas where mine danger presents a direct safety problem for the population. It is estimated that there are over 40,000 mines covering more than 420,000 sq. km in Croatia. This has an important operational alignment for Vermilion; before we conduct seismic work in one of our exploration blocks, we will need to ensure that demining is conducted. In the second year of the program the CEE also provided support to Hungary Ambulance, supporting a fire station near our operations.

Scouts Association of Croatia (Global Environmental Stewardship Program Partner)

Following devastating fires in Dalmatia, the Scouts Association has undertaken the largest volunteer reforestation action in Croatia, planting over 20,000 seedlings to date. Vermilion is proud to be able to support the return of life back to these wildfire areas.

France

SNSM – Les Sauveteurs en Mer (Global Emergency Responder Program Partner)

For over a century, Les Sauveteurs en Mer has been committed to safeguarding human life at sea and on the coast. With 32 Training & Intervention Centres and 218 stations through the country, they conduct 5,200 interventions and rescue 7,700 people each year. We'll be supporting their Lège Cap Ferret location, closest to our operations in Cap Ferret.

Chantier Ecole (Global Environmental Stewardship Program Partner)

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 (Global Emergency Responder Program Partner)

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.

2019 Update:

In 2019 Vermilion announced a new flagship partnership supporting Stichting Present. Connecting organizations and volunteers with individuals who live in poverty, social isolation or have a disability, Stichting Present helps communities flourish. In 2019 Vermilion staff volunteered on 4 community projects as part of their Day of Caring.



KNRM – Rescue and Help on Water (Global Emergency Responder Program Partner)

Since 1824, KNRM, the Royal Dutch rescue organization, has provided boats and lifeguards to ensure the health and safety of those on lake and coastal waters. Each year, the 1,300 highly committed and professionally trained volunteers save more than 3,000 people. We support the Harlingen location, closest to our operations.

It Fryske Gea (Global Environmental Stewardship Program Partner)

The importance of the bees and biodiversity in general is becoming more known in the Netherlands. Vermilion will support valuable research to better enable nature conservation organizations to make impactful adaptations to support these populations.

United States

Food Bank of the Rockies

Each year, our team in the Denver office volunteers at the Food Bank of the Rockies, 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 (Global Emergency Responder Program Partner)

The Weston County Fire Protection District, a local community volunteer fire department, is close to our operations in Wyoming, and relies heavily on donors to ensure their firefighters have the necessary training, trucks and protective equipment to safely respond to fires. In addition to three fire stations, the District places wildland engines at strategic rural locations to provide quicker responses to wildfires.

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	SAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	SASB	TCFD	Assurance
	SS Sector Supplement								
		GENERAL STANDARD DISCLOSURES							
		STRATEGY AND ANALYSIS							
G4-1 102-14	CEO sustainability statement	Message from our Chief Executive Officer	12.6	15, 19					
G4-2 102-15	Description of key impacts, risks and opportunities	Our Approach to Sustainability	12.6	15, 19	Materiality			Governance	
		ORGANIZATIONAL PROFILE							
G4-3 102-1	Name of organization	Vermilion Energy Inc.	12.6	1		4.1			
G4-4 102-2	Primary brands, products, services	About Vermilion	12.6	1		4.1			
G4-5 102-3	Location of headquarters	Calgary, Alberta, Canada	12.6	1		4.1			
G4-6 102-4	Countries of operation	About Vermilion	16.6-7	1		4.1			
G4-7 102-5	Nature of ownership and legal form	About Vermilion	16.6-7	1		4.1			
G4-8 102-6	Markets served	About Vermilion	16.6-7	1		4.1			
G4-9 102-7	Scale of organization	About Vermilion Economic & Operational Highlights Performance Metrics	16.6-7	1		4.1			
G4-10 102-8	Workforce metrics	Performance Metrics	8.5	1	Gender diversity	4.6b			
G4-11 102-41	Employees under collective bargaining	Performance Metrics	8.8	1	Freedom of association	4.6b			
G4-12 102-9	Organization's supply chain	About Vermilion Our Value Chain	8.1	1	Supply chain awareness	2, 4.6e			
G4-13 102-10	Significant changes during reporting period	About Vermilion	12.6	1		4.1			
G4-14 102-11	Precautionary approach	Our Approach to Sustainability	12.2	9		4.6a			
G4-15 102-12	External initiatives to which company subscribes	Our Approach to Sustainability Reporting Initiatives	16.6-7	12, 13, 14	Payment transparency	3.3			
G4-16 102-13	Memberships in associations	Associations Reporting Initiatives	16.6-7	12, 13, 14	Policy influence	3.3			
		IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES							
G4-17 102-45	List all organizational entities	About our Report	16.6-7	1	Reporting	4.1			
G4-18 102-46	Define report content and Aspect Boundaries	About our Report Identifying Issues Material Issues	12.6	1	Reporting	3.1			
G4-19 102-47	List all material Aspects	Identifying Issues Material Issues	12.6	1	Materiality	3.1			
G4-20 103-1	Explain Aspect Boundaries within organization	Identifying Issues Material Issues Materiality Analysis	12.6	1		3.1			
G4-21 103-1	Explain Aspect Boundaries outside organization	Identifying Issues Material Issues Materiality Analysis	12.6	1	Materiality	3.1			
G4-22 102-48	Restatements of previous info, if applicable	Performance Metrics	12.6	1		3.1			

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	SAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	SASB	TCFD	Assurance
G4-23 102-49	Significant changes from previous reporting periods	About our Report	12.6	1		3.1			
STAKEHOLDER ENGAGEMENT									
G4-24 102-40	List stakeholder groups engaged by the organization (SS including indigenous peoples)	Our Value Chain Stakeholder Engagement	16.7	2, 17, 21	Stakeholder engagement	3.5, 4.6c			
G4-25 102-42	Basis for identifying and selecting stakeholders with whom to engage	Our Value Chain Stakeholder Engagement	16.7	2, 21	Stakeholder engagement	3.5, 4.6c			
G4-26 102-43	Approach to stakeholder engagement	Stakeholder Engagement	16.7	2, 21	Stakeholder engagement	3.5, 4.6c			
G4-27 102-44	Key topics and concerns raised through stakeholder engagement (SS including indigenous peoples)	Stakeholder Engagement	16.7	2, 21	Stakeholder engagement	3.5, 4.6c			
REPORT PROFILE									
G4-28 102-50	Reporting period	Performance Metrics Data to Dec 2016	12.6	1		5			
G4-29 102-51	Date of most recent previous report	2017	12.6	1		5			
G4-30 102-52	Reporting cycle	Ongoing – annual data updates for all material issues, with other updates through the year	12.6	1		5			
G4-31 102-53	Contact point for questions about report	Yvonne Jeffery, Sustainability Lead yjeffery@vermilionenergy.com	12.6	1		5			
G4-32 102-54 102-55	In accordance option & GRI Content Index	In accordance with GRI G4 Comprehensive, moving to GRI Standards in 2018	12.6	1		5			
G4-33 102-56	External assurance	Specific indicators, noted in GRI Content Index	12.6	1		5			
GOVERNANCE									
G4-34 102-18	Governance structure	Our Approach to Governance Proxy Statement & Info Circular	16.6-7	20	Corporate Governance	4.2		Governance	
G4-35 102-19	Process for delegating authority for economic, environmental & social topics to sr executives and other employees	Sustainability Governance	16.6-7	1	Risk Governance Stakeholder engagement	4.2		Governance	
G4-36 102-20	Executive level position in EES	Sustainability Governance	16.6-7	1	Risk Governance Stakeholder engagement	4.2		Governance	
G4-37 102-21	Consultation process between stakeholders and highest governance body on EES	Sustainability Governance	16.6-7	1	Stakeholder engagement	4.2			
G4-38 102-22	Composition of highest governance body and committees	Our Approach to Governance Proxy Statement & Info Circular	16.6-7	20	Board structure, Gender diversity	4.2, 6			
G4-39 102-23	Is chair of highest governance body also an executive officer?	No	16.6-7	20	Corporate Governance	4.2			

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	SAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	SASB	TCFD	Assurance
G4-40 102-24	Nomination and selection process for highest governance body	Our Approach to Governance Proxy Statement & Info Circular	16.6-7	20	Diversity policy Board industry experience Average tenure	4.2			
G4-41 102-25	Processes for avoiding conflict of interest for highest governance body	Ethical Culture Proxy Statement & Info Circular	16.6-7	20		4.2	EM-EP-510a.1		
G4-42 102-26	Highest governance body's roles in developing organization's purpose, value, mission, EES policies	Our Approach to Governance	16.6-7	1		4.2	EM-EP-530a.1	Governance	
G4-43 103-27	Measures to develop highest governance body's knowledge about EES	Our Approach to Governance	16.6-7	1		4.2	EM-EP-530a.1	Governance	
G4-44 102-28	Process of evaluating highest governance body's performance in EES	Our Approach to Governance Proxy Statement & Info Circular	16.6-7	1	Board effectiveness	4.2	EM-EP-530a.1		
G4-45 102-29	Highest governance body's role in identifying EES risks and impacts	Risk Management Climate-Related Risks & Opportunities	16.6-7	1	Risk & Crisis Management	4.4	EM-EP-530a.1	Governance, Metrics & Targets	
G4-46 102-30	Highest governance body's role in reviewing effectiveness of EES risk management processes	Risk Management Climate-Related Risks & Opportunities	16.6-7	1	Risk & Crisis Management	4.4	EM-EP-530a.1	Metrics & Targets	
G4-47 102-31	Frequency of 4-46 review	Quarterly	16.6-7	1		4.4		Governance	
G4-48 102-32	Highest level of formal sustainability report review	CEO	16.6-7	1		4.2		Governance	
G4-49 102-33	Process for communicating critical concerns to highest governance body	Our Approach to Governance Proxy Statement & Info Circular	16.6-7	20	Risk Review	3.3			
G4-50 102-34	Nature & # of concerns communicated	No critical concerns communicated: Performance Metrics	16.6-7	20	Risk Review	3.3			
G4-51 102-35	Remuneration policies for highest governance body & sr exec	Proxy Statement & Info Circular	16.6-7	6, 7, 8	Executive Compensation	4.6b			
G4-52 102-36	Process for determining remuneration	Proxy Statement & Info Circular	16.6-7	6, 7, 8		4.6b			
G4-53 102-37	Process for stakeholder engagement in determining remuneration	Governance Dashboard	16.6-7	7		4.6b			
G4-54 102-38	Ratio of annual total compensation of highest-paid individual to median annual total comp all employees	Governance Dashboard Performance Metrics	10.3	6, 7, 8	Compensation disclosure	4.6b			
G4-55 102-39	% annual increase of G4-54	Performance Metrics	10.3	6, 7, 8	Compensation disclosure	4.6b			

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	SAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	SASB	TCFD	Assurance
		ETHICS AND INTEGRITY							
G4-56 102-16	Organization's values, principles, standards such as codes of conduct and ethics	Ethical Culture	16.5	12, 13, 14	Codes of Conduct	3.3	EM-EP-530a.1		
G4-57 102-17	Mechanisms for seeking advice on ethical issues	Ethical Culture	16.5	12, 13, 14	Systems / procedures	3.3	EM-EP-530a.1		
G4-58 102-17	Mechanisms for reporting ethical concerns	Ethical Culture	16.5	12, 13, 14	Reporting on breaches	3.3	EM-EP-530a.1		
		SPECIFIC STANDARD DISCLOSURES							
		ECONOMIC							
		Economic Performance							
DMA 103-1, 2,3		Our Approach to Business	8.1	2					
G4-EC1 201-1	Direct economic value generated and distributed, including community investment	Performance Metrics	8.1	2	Tax reporting Philanthropic activities	4.1a			LBG Canada audit of 2012-2016 community investment data; internal audit of 2017+ data
G4-EC2 201-2	Financial implications of climate change	Climate-Related Risks & Opportunities Approach to Climate-Related Issues	13.1	9, 10, 11	Financial risks & opportunities – climate change	4.6a		Governance, Risk Management	
G4-EC2SS	Reduction in water use	Water Use Performance Metrics	14.1, 15.1	9, 10, 11		4.6a	EM-EP-140a.1, EM-EP-140a.2, EM-EP-140a.3		
G4-EC3 201-3	Coverage of defined benefit plan obligations	Performance Metrics	8.5	6, 7, 8		4.6b			
G4-EC4 201-4	Financial assistance received from government	Performance Metrics	16.5	17		3.3			
G4-OG1	Volume and type of estimated proved reserves and production	Performance Metrics Economic & Operational Highlights	8.1	1	Reserve replacement Natural gas bias Natural gas reserve life & production	4.1a	EM-EP-510a.1		Evaluated by GLJ Petroleum Consultants, an independent qualified reserve estimator, in accordance with the Canadian Oil and Gas Evaluation Handbook and NI 51-101
		ENVIRONMENTAL							
		Energy							
G4-DMA 103-1, 2,3		Our HSE Approach and Management Our Approach to Environmental Stewardship Measurement and Evaluation	7.2-3	9, 10, 11		4.6a	EM-EP-110a.3		
G4-EN3 302-1	Energy consumption within the organization	Performance Metrics	7.2-3	9, 10, 11	Energy consumption	4.6a			
G4-EN4 302-2	Energy consumption outside of the organization (use of sold products)	Performance Metrics	7.2-3	9, 10, 11		4.6a			
G4-EN5 302-3	Energy intensity	Performance Metrics	7.2-3	9, 10, 11	Energy intensity	4.6a			
G4-EN6 302-4	Reduction of energy consumption	Performance Metrics Energy and Emissions Reduction Projects	7.2-3	9, 10, 11	Renewable energy consumption	4.6a			
G4-EN7 302-5	Reductions in energy requirements of products and services	N/A	7.2-3	9, 10, 11	CAFE improvement N/A	4.6a			
OG-2	Total amount invested in renewable energy	Performance Metrics Renewable Energy Projects in France Renewable Energy Projects in the Netherlands	7.2-3, 9.4, 17.17	9, 10, 11	Renewable energy production	4.6a	EM-EP-420a.3		

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	SAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	SASB	TCFD	Assurance
OG-3	Total amount of renewable energy generated by source	Performance Metrics	7.2-3, 17.17	9, 10, 11		4.6a	EM-EP-420a.3		
		Water							
G4-DMA		Our HSE Approach and Management Our Approach to Environmental Stewardship Measurement and Evaluation Water Stewardship Water Efficiency	6.1, 6.3-4, 6.6, 14.1, 15.1	9, 10, 11	Water consumption	4.6a	EM-EP-530a.1		
G4-EN8 303-1	Total water withdrawal by source	Performance Metrics	6.1, 6.3-4, 6.6, 14.1, 15.1	9, 10, 11	EP - Water	4.6a	EM-EP-140a.1		
G4-EN9 303-2	Water sources significantly affected by withdrawal of water	No water sources significantly affected: Performance Metrics	6.1, 6.3-4, 6.6, 14.1, 15.1	9, 10, 11	Water stressed areas	4.6a	EM-EP-140a.1		
G4-EN10 303-3	Percentage and total volume of water recycled and reused	Performance Metrics	6.1, 6.3-4, 6.6, 14.1, 15.1	9, 10, 11		4.6a	EM-EP-140a.2		
		Biodiversity							
G4-DMA		Our HSE Approach and Management Our Approach to Environmental Stewardship Measurement and Evaluation Land stewardship Water Stewardship	6.1, 6.6, 12.2, 14.2, 15.1, 15.5, 17.17	9, 10, 11	Biodiversity	4.6a	EM-EP-160a.1		
G4-EN11 304-1	Biodiversity: operational sites in or adjacent to protected areas or areas of high biodiversity value	Land stewardship Our Approach to Environmental Stewardship Water Stewardship	6.1, 6.6, 12.2, 14.2, 15.1, 15.5, 17.17	9, 10, 11	Biodiversity	4.6a	EM-EP-160a.1		
G4-EN12 304-2	Significant impacts of activities on biodiversity	Land stewardship Our Approach to Environmental Stewardship Water Stewardship	6.1, 6.6, 12.2, 14.2, 15.1, 15.5, 17.17	9, 10, 11	Biodiversity	4.6a	EM-EP-160a.1		
G4-EN13 304-3	Habitats protected or restored	Land stewardship Our Approach to Environmental Stewardship Water Stewardship	6.1, 6.6, 12.2, 14.2, 15.1, 15.5, 17.17	9, 10, 11	Biodiversity	4.6a	EM-EP-160a.1		
G4-EN14 304-4	IUCN red list species and national conservation list species	Land stewardship Our Approach to Environmental Stewardship Water Stewardship	6.1, 6.6, 12.2, 14.2, 15.1, 15.5, 17.17	9, 10, 11	Biodiversity	4.6a			
		Emissions							
G4-DMA		Our HSE Approach and Management Our Approach to Environmental Stewardship Measurement and Evaluation Approach to Methane Emissions Reduction Energy and Emissions Reduction Projects	12.1-2, 13.1	9, 10, 11	Climate strategy Biodiversity GHG emissions targets / CDP / carbon pricing	4.6a	EM-EP-110a.3		
G4-EN15,SS 305-1	Direct greenhouse gas (GHG) emissions (Scope 1)	Performance Metrics	12.1-2, 13.1	9, 10, 11	Scope 1	4.6a	EM-EP-110a.1		
G4-EN16 305-2	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	Performance Metrics	12.1-2, 13.1	9, 10, 11	Scope 2	4.6a	EM-EP-110a.2		
G4-EN17, SS 305-3	Other indirect greenhouse gas (GHG) emissions (Scope 3)	Performance Metrics	12.1-2, 13.1	9, 10, 11	Scope 3	4.6a	EM-EP-110a.2		
G4-EN18, SS 305-4	Greenhouse gas (GHG) emissions intensity	Performance Metrics	12.1-2, 13.1	9, 10, 11		4.6a	EM-EP-110a.2		

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	SAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	SASB	TCFD	Assurance
G4-EN19 305-5	Reduction of greenhouse gas (GHG) emissions	Performance Metrics Approach to Methane Emissions Reduction Energy and Emissions Reduction Projects	12.1-2, 13.1	9, 10, 11	Methane emissions	4.6a	EM-EP-110a.2		
G4-EN20 305-6	Emissions of ozone-depleting substances (ODS)	Performance Metrics	12.1-2, 13.1	9, 10, 11		4.6a	EM-EP-120a.1		
G4-EN21 305-7	NOX, SOX, and other significant air emissions	Performance Metrics	12.1-2, 13.1	9, 10, 11	VOC emissions, SOx, dust, NOx	4.6a	EM-EP-120a.1		
		Effluents & Waste							
G4-DMA		Our HSE Approach and Management Our Approach to Environmental Stewardship Measurement and Evaluation	14.1-2	9, 10, 11		4.6a			
G4-EN22 306-1	Total water discharge by quality and destination	Performance Metrics	14.1-2	9, 10, 11		4.6a	EM-EP-140a.2		
G4-EN23 306-2	Total weight of waste by type and disposal method	Performance Metrics	14.1-2	9, 10, 11	Waste Hazardous waste	4.6a			
G4-EN24 306-3	Total number and volume of significant spills	Performance Metrics	14.1-2	9, 10, 11	Hydrocarbon spills	4.6a	160a.2		
G4-EN25 306-4	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention2 Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	Performance Metrics	14.1-2	9, 10, 11		4.6a			
G4-EN26 306-5	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization’s discharges of water and runoff	None: Performance Metrics	14.1-2	9, 10, 11		4.6a	EM-EP-160a.1		
OG-5	Produced water by disposal method	Performance Metrics	14.1-2	9, 10, 11		4.6a	EM-EP-140a.2		
OG-6	Volume of flared and vented hydrocarbon	Performance Metrics	14.1-2	9, 10, 11		4.6a	EM-EP-110a.2		
OG-7	Drill mud & cuttings	Performance Metrics	14.1-2	9, 10, 11		4.6a			
		Overall							
G4-DMA		Our HSE Approach and Management Our Approach to Environmental Stewardship Measurement and Evaluation	12.1-2	9, 10, 11		4.6a			
EN-29 307-1	Fines and number of sanctions for non-compliance with environmental laws and regulations	0	12.1-2	9, 10, 11	Environmental violations	4.6a	EM-EP-530a.1		
EN-31 N/A	Total environmental expenditures	Performance Metrics	12.1-2	9, 10, 11	ROI (environment)	4.6a			
		SOCIAL							

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	SAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	SASB	TCFD	Assurance
Employment									
G4-DMA 103		Our Approach to People Performance Management, Training and Development	8.5, 16.1	6, 7, 8		4.6b			
G4-LA1 401-1	Total number and rates of new employee hires and employee turnover by age group, gender, and region	Performance Metrics	8.5	6, 7, 8	Turnover rate	4.6b			
G4-LA2 401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Performance Metrics Our Approach to People	8.5	6, 7, 8		4.6b			
G4-LA3 401-3	Return to work and retention rates after parental leave, by gender	Performance Metrics	8.5	6, 7, 8		4.6b			
Occupational Health and Safety									
G4-DMA		Our HSE Approach and Management HSE Training Our Approach to Safety HSE Perception Survey	3.4, 3.6, 8.8	6, 7, 8	Health, Safety & Wellbeing OHS Training and Education	4.6b	EM-EP-320a.2		
G4-LA5 403-1	Percentage of total workforce represented in formal joint management–worker health and safety committees to help monitor / advise on occupational health and safety	Performance Metrics	3.6, 8.8	6, 7, 8	Occupational health and safety	4.6b	EM-EP-320a.2		
G4-LA6 403-2	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	Performance Metrics Safety Dashboard	3.6, 8.8	6, 7, 8	Absentee rate TRIF / LTI Fatalities	4.6b	EM-EP-320a.1		
G4-LA7 403-3	Workers with high incidence or high risk of diseases related to their occupation	Performance Metrics	3.4, 8.8	6, 7, 8	Occupational diseases	4.6b	EM-EP-320a.1		
G4-LA8 403-4	Health and safety topics covered in formal agreements with trade unions	Performance Metrics	8.8	6, 7, 8		4.6b			
OG-13	Process safety events	Performance Metrics	8.8	6, 7, 8	Process safety events	4.6b			
Training and Education									
G4-DMA		Our Approach to People Performance Management, Training and Development	8.2, 8.5	6, 7, 8	Trend in employee engagement	4.6b			
G4-LA9 404-1	Average hours of training per year per employee by gender, and by employee category	Performance Metrics	8.2, 8.5	6, 7, 8	Training & development inputs	4.6b			
G4-LA10 404-2	Programs for skills management and lifelong learning that	Performance Management, Training and Development	8.2, 8.5	6, 7, 8	Employee development programs	4.6b			

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	SAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	SASB	TCFD	Assurance
	support the continued employability of employees and assist them in managing career endings								
G4-LA11 404-3	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	Performance Metrics	8.2, 8.5	6, 7, 8	Performance appraisal	4.6b			
		HUMAN RIGHTS							
		Non-discrimination							
G4-DMA		Our Approach to People Sustainability Policy	5.2	3, 4, 5		4.6b	EM-EP-210a.3		
G4-HR3 406-1	Total number of incidents of discrimination and corrective actions taken	Performance Metrics	5.2	3, 4, 5		4.6b			
		Indigenous Rights							
G4-DMA		Ethics & Anti-Corruption Sustainability Policy Our Approach to Communities Stakeholder Engagement	2.3	3, 4, 5		4.6b	EM-EP-210a.3		
G4-HR8 411-1	Total number of incidents of violations involving rights of indigenous peoples and actions taken	Performance Metrics	2.3	3, 4, 5	Human rights assessment	4.6b	EM-EP-210a.3		
		Human Rights Grievance Mechanisms							
G4-DMA		Ethics & Anti-Corruption Sustainability Policy Our Approach to Communities	8.8, 16.1	3, 4, 5		4.6c	EM-EP-210a.3		
G4-HR12 103-2	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	Performance Metrics	8.8, 16.1	3, 4, 5		4.6c	EM-EP-210a.3		
		SOCIETY							
		Local Communities							
DMA		Stakeholder engagement Environmental impact assessments Community development and investment	1.2, 7.2-3, 16.7, 17.17	16, 18	Impact measurement and valuation Local cultural heritage Indigenous peoples	4.6b	EM-EP-210b.1		
G4-SO1 413-1	Percentage of operations with implemented local community engagement, impact assessments and development programs	100%: Community development and investment Our Approach to Communities Volunteering Around the World Key Community Partnerships	1.2, 2.1, 3.6, 4.4, 4.6, 5.2, 5.3, 6.6, 8.2-6, 10.2, 11.4	16, 18	Active community engagement, consultation, EIA / SIA results Group-wide strategy	4.6b	EM-EP-210b.1		
G4-SO2 413-2	Operations with significant actual and potential negative	As a responsible energy producer, Vermilion has, in addition to our overall HSE approach, established management tools and processes that are specific to the	3.6, 6.6, 7.2, 7.3, 9.4, 12.1-2	16, 18	Relocation programs (note: no relocations of	4.6b	EM-EP-210a.1, EM-EP-210a.2		

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	SAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	SASB	TCFD	Assurance
	impacts on local communities	protection of the health and safety of our workers and our communities: Public and community safety: Public safety and emergency response Potential environmental impacts: Environmental impact assessments Approach to methane reduction Approach to climate-related issues			local people or communities)				
Anti-corruption									
DMA		Ethics & Anti-Corruption	16.5	12, 13, 14	Code of business conduct	3.3	EM-EP-510a.2		
G4-SO3 205-1	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	Performance Metrics	16.5	12, 13, 14		3.3	EM-EP-510a.2		
G4-SO4 205-2	Communication and training on anti-corruption policies and procedures	Performance Metrics	16.5	12, 13, 14		3.3	EM-EP-510a.2		
G4-SO5 205-3	Confirmed incidents of corruption and actions taken	Performance Metrics	16.5	12, 13, 14	Reporting on breaches	3.3	EM-EP-510a.2		
G4-SO6 415-1	Political donations	Performance Metrics	16.5	12, 13, 14, 17	Policy influence	3.3	EM-EP-510a.2		
G4-SO7 206-1	Anti-competitive practices	No legal actions	16.5	12, 13, 14	Anti-competitive practices	3.3	EM-EP-510a.2		
G4-SO8 419-1	Fines for non-compliance	Performance Metrics	16.5	12, 13, 14		3.3	EM-EP-510a.2		

MATERIAL TOPIC	2012	2013	2014	2015	2016	2017	2018	2019	Context	GRI
ECONOMIC IMPACT										
Gross petroleum and natural gas sales: \$M	1,083,103	1,273,835	1,419,628	939,586	882,791	1,098,838	1,678,117	1,689,863		102-7
Canada	304,202	382,005	537,788	320,613	252,867	330,903	671,172	828,070		102-7
France	388,410	453,315	431,252	281,422	246,863	268,103	360,602	326,699		102-7
Netherlands	123,528	139,570	123,815	129,057	100,707	108,060	165,916	112,857		102-7
Germany			41,962	41,384	29,049	68,696	82,449	57,312		102-7
Ireland				57	109,156	153,330	205,150	104,274	2019: First full year of Corrib operatorship	102-7
Central & Eastern Europe					0	0	3,630	797	As per p 34 of 2019 Annual Report: CEE and Corp combined	102-7
Australia	266,963	298,945	283,481	162,765	136,835	154,391	150,733	184,490		102-7
United States			1,330	4,288	7,314	15,355	38,465	75,364		102-7
Operating costs, excludes transportation, royalties and G&A: \$M	178,442	195,043	232,307	225,938	222,185	242,267	357,014	440,078		102-7
Canada	55,418	55,804	76,178	89,085	71,543	80,444	177,499	242,790		102-7
France	54,907	66,997	61,729	50,718	50,000	51,002	54,690	61,281		102-7
Netherlands	19,149	20,617	24,041	22,746	20,796	21,212	26,681	32,125		102-7
Germany			8,686	10,956	12,379	20,176	23,048	24,970		102-7
Ireland				15	18,646	17,596	15,366	12,431	2019: First full year of Corrib operatorship	102-7
Central & Eastern Europe					0	0	110	301	As per p 34 of 2019 Annual Report: CEE and Corp combined	102-7
Australia	48,968	51,625	61,422	51,676	47,507	50,139	53,199	49,810		102-7
United States			241	742	1,314	1,698	6,421	16,370		102-7
Employee wages and benefits costs: \$M	116,134	134,729	168,552	155,638	139,838	137,831	174,831	201,581		102-7
Canada	71,167	86,714	95,021	79,066	73,642	70,581	93,750	109,468	CBU and Corporate	102-7
France	17,672	19,945	24,948	22,419	19,216	22,904	23,733	22,103		102-7
Netherlands	9,598	9,514	14,378	19,192	18,605	14,492	15,080	15,049		102-7
Germany			681	3,787	3,850	5,851	6,846	5,929		102-7
Ireland				0	0	0	1,809	14,981	2019: First full year of Corrib operatorship	102-7
Central & Eastern Europe					569	991	1,171	1,638	CEE	102-7
Australia	17,697	18,556	29,628	26,248	18,820	17,715	26,016	23,950		102-7
United States			3,896	4,986	5,136	5,297	6,426	8,462		102-7
Dividends declared: \$M	223,717	242,599	272,732	283,575	299,070	311,397	388,111	427,311		102-7
Interest payments: \$M	27,586	38,183	49,655	59,852	56,957	57,313	72,759	81,377	508,688	102-7
Taxes paid: \$M	181,913	218,359	157,336	51,115	19,678	32,107	43,577	52,230		102-7
Canada	1,582	1,403	1,420	1,091	1,097	527	513	406		102-7
France	63,006	94,524	66,901	23,764	2,867	10,556	15,084	21,431		102-7
Netherlands	25,648	34,132	4,154	12,152	6,624	(3,331)	16,561	(3,961)		102-7
Germany			44	0	0	0	0	0		102-7
Ireland				0	0	0	0	0		102-7
Central & Eastern Europe					0	0	0	0		102-7
Australia – includes PRRT and corporate taxes	91,677	88,300	84,817	14,108	9,090	24,355	11,419	34,354		102-7
United States			0	0	0	0	0	0		102-7
Royalties paid: \$M	52,084	67,936	108,000	65,920	54,284	74,476	152,167	163,666		EC15S
Canada	31,667	40,891	65,563	28,144	21,475	33,258	84,696	94,079		EC15S
France	20,417	27,045	28,444	26,958	27,091	28,565	46,781	43,895		EC15S
Netherlands	0	0	5,014	3,082	1,462	1,722	3,181	1,469		EC15S
Germany			8,613	6,479	2,089	6,655	6,626	5,264		EC15S
Ireland				0	0	0	0	0		EC15S
Central & Eastern Europe					0	0	813	253	As per p 34 of 2019 Annual Report: CEE and Corp combined	EC15S
Australia	0	0	0	0	0	0	0	0		EC15S
United States			366	1,257	2,167	4,276	10,070	18,706		EC15S
Community investment (also see communities metrics): \$M	718	1,076	1,345	1,048	1,392	1,470	1,587	1,907		102-7
Canada	531	801	919	722	947	852	908	1,249	Includes corporate program costs	102-7
France	117	188	189	158	109	187	155	174		102-7
Netherlands	41	29	114	89	225	315	277	153		102-7
Germany			0	0	9	2	68	131		102-7
Ireland				0	0	0	70	104		102-7
Central & Eastern Europe					0	3	4	3		102-7
Australia	29	58	124	65	95	101	88	75		102-7
United States			0	14	7	10	17	18		102-7
Direct economic value distributed: \$M	780,594	897,925	989,927	843,086	793,404	856,861	1,190,046	1,368,150	Total: operating costs through community investment above	102-7
Economic value distributed in Canada	160,365	185,613	239,101	198,108	168,704	185,662	357,366	447,992		102-7
Economic value distributed in France Business Unit	156,119	208,699	182,211	124,017	99,283	113,214	140,443	148,884		102-7
Economic value distributed in Netherlands Business Unit	54,436	64,292	47,701	57,261	47,712	34,410	61,780	44,835		102-7
Economic value distributed in Germany Business Unit			18,024	21,222	18,327	32,684	36,588	36,294		102-7
Economic value distributed in Ireland Business Unit				15	18,646	17,596	17,245	27,516	2019: First full year of Corrib operatorship	102-7
Economic value distributed in CEE Business Unit					569	994	2,098	2,195		102-7
Economic value distributed in Australia Business Unit	158,371	158,539	176,001	92,097	75,512	92,310	90,722	108,189		102-7
Economic value distributed in US Business Unit			4,503	6,999	4,057	6,975	22,934	43,556		102-7
Economic value distributed via dividends & Interest	251,303	280,782	322,387	343,427	356,027	368,710	460,870	508,688		102-7
ASSETS, DEBT & EQUITY										
Net land position: acres	1,807,024	2,207,800	2,539,700	2,734,045	6,158,614	6,621,826	7,066,360	7,345,355	2012-13 Cda FR Aus NL; 2014-5 +Hungary US; 2016 +Croatia; 2019 +Slovakia	102-7
Common shares outstanding (basic): MM	99	102	107	112	118	122	153	156		102-7
Market capitalization: \$ billions	5.13	6.37	6.12	4.21	6.68	5.58	4.39	3.32		102-7
Fund flows from operations: \$M	557,728	667,526	804,865	517,167	510,791	602,565	838,652	908,055		102-7
Fund flows from operations per basic share	5.69	6.61	7.63	4.71	4.41	5.00	5.96	5.87		102-7
Fund flows from operations per diluted share	5.62	6.51	7.51	4.65	4.36	4.92	5.89	5.82		102-7
Net earnings: \$M	190,622	327,641	269,326	(217,302)	(160,051)	62,258	271,650	32,799		102-7
Net earnings per basic share	1.94	3.24	2.55	(1.98)	(1.38)	0.52	1.93	0.21		102-7
Capital expenditures: \$M	452,538	542,726	687,724	486,861	242,408	320,449	518,214	523,164	E&D Capex	102-7
Acquisitions: \$M	315,438	36,689	601,865	28,897	98,524	27,637	1,759,425	38,472		102-7
Cash dividends per share	2.28	2.40	2.58	2.58	2.58	2.58	2.72	2.76		102-7
Dividends as % of fund flows from operations, gross	40%	36%	34%	55%	50%	52%	46%	47%		102-7
Dividends as % of fund flows from operations, net	27%	26%	24%	25%	21%	33%	40%	43%		102-7
Long term debt: \$M	642,022	990,024	1,238,080	1,162,998	1,362,192	1,270,330	1,796,207	1,924,665		102-7
Total shareholders' equity: \$M	1,418,646	1,716,375	2,021,346	1,858,659	1,578,463	1,542,886	2,817,251	2,453,305		102-7
Total assets: \$M	3,076,257	3,708,719	4,386,091	4,209,220	4,087,184	3,974,965	6,270,671	5,866,120		102-7
Total annual shareholder return	19.6%	24.6%	-4.4%	-29.5%	57.1%	-14.6%	-32.6%	-17.6%		102-7
OPERATIONS AND RESERVES										
Number of operations (operated business units)	4	4	5	5	5	7	8	8	Ireland operated as of November 30, 2018	102-7
Production – total: boe/d based on financial control	37,803	41,005	49,573	54,922	63,526	68,021	87,270	100,357		G4-9
Production – crude oil: bbls/d	23,971	25,741	28,879	28,502	27,852	27,721	39,182	47,902		G4-9
Production – NGLs: bbls/d	1,299	1,730	2,533	4,214	2,582	4,194	6,366	7,984		G4-9
Production – natural gas: mmcf/d	75	81	109	133	199	217	250	267		G4-9
Total proved + probable reserves, gross: mboe	143,695	174,453	212,518	227,102	290,122	298,490	488,145	501,233	2012-3: Cda, FR, NL, AUS; 2014-5: Adds US; 2016+ :all BUs	OG1

MATERIAL TOPIC	2012	2013	2014	2015	2016	2017	2018	2019	Context	GRI
COMMUNITY INVESTMENT										
Community investment total: a+b below (\$ thousands)	718	1,076	1,345	1,048	1,392	1,470	1,587	1,907	100% non-profit/charitable organizations	102-7
Canada	531	801	919	722	947	852	908	1,249	Includes corporate program costs	102-7
France	117	188	189	158	109	187	155	174		102-7
Netherlands	41	29	114	89	225	315	277	153		102-7
Germany				-	9	2	68	131		102-7
Ireland				-	-		70	104		102-7
Central & Eastern Europe						3	4	3		102-7
Australia	29	58	124	65	95	101	88	75		102-7
United States			-	14	7	10	17	18		102-7
COMMUNITY IMPACT										
Operations with local community engagement programs: %	100	100	100	100	100	100	100	100	All Business Units	413-1
Total community impact for non-profits or charities: a+b+c below \$	964,173	1,310,226	1,624,122	1,348,415	1,530,016	1,808,291	2,159,244	2,297,436	520 community groups supported; 100% non-profit/charitable	413-1
a. Direct company-driven donations: \$	553,733	860,708	1,063,220	789,688	1,040,189	1,056,694	1,097,602	1,096,683	Based on LBG circles of corporate giving	413-1
b. Additional direct support (e.g. in kind, employee hours, volunteer grants): \$	163,862	214,738	282,244	258,117	352,132	413,568	489,698	740,385	Includes management overhead	413-1
c. External resources leveraged (e.g. staff, partner, government matching): \$	246,578	234,780	278,659	300,610	137,695	338,029	571,945	460,368	Includes partner contributions (e.g. in NL) and reflects 100% operating status for Corrib (Ireland)	413-1
Other investment in our communities (e.g. beyond non-profit/charity): \$	70,000	140,000	44,100	-	-	-	-	59,330	2019: event sponsorships, internships and scholarships	413-1
Employee Volunteering Outside Working Hours										
Employee volunteer grant program: Vermilion donations \$	14,500	22,358	46,188	40,138	58,855	77,572	76,137	139,872	100% non-profit/charitable organizations	413-1
Employee volunteer grant program: Employee hours	1,392	4,831	8,875	9,079	11,714	15,252	15,595	29,338		413-1
Employee Volunteering During Working Hours										
Days of Caring: # of events	N/T	N/T	N/T	N/T	N/T	26	23	51		413-1
Days of Caring: # of organizations supported	N/T	N/T	N/T	N/T	N/T	N/T	17	41	100% non-profit/charitable organizations	413-1
Days of Caring: Employee hours	1,000	1,179	2,128	1,995	2,135	1,932	2,022	3,021		413-1
Days of Caring: # of individuals supported	N/T	N/T	N/T	N/T	N/T	55,755	36,490	54,090		413-1
Days of Caring: \$ in cost savings to community organizations	N/T	N/T	N/T	N/T	N/T	38,000	49,875	84,477		413-1

[illegible]

Material Topic	2012	2013	2014	2015	2016	2017	2018	2019	Context	GRI
OVERALL STAFF DEMOGRAPHICS										
Total staff (employees + contractors) (FTEs) Employees = permanent; Contractors = fixed-term contracts	515	597	690	721	661	685	1023	1055		102-7
Staff by employment contract & gender										102-8a
Employees (Male)	241	304	365	356	352	360	488	580		
Employees (Female)	136	157	170	164	152	146	210	243		
Total Employees	377	461	535	520	504	506	698	823		
Contractors (Male)	112	108	124	171	122	124	248	179		
Contractors (Female)	26	28	31	30	35	55	77	53		
Total Contractors	138	136	155	201	157	179	325	232		
Permanent employees by employment type & gender										102-8c
Full-time (Male)	240	303	362	350	343	454	703	727		
Full-time (Female)	134	152	163	153	142	175	250	259		
Part-time (Male)	1	1	3	6	9	30	33	32		
Part-time (Female)	2	5	7	11	10	26	37	37		
Staff by region and gender (all staff)										102-8c
Australia - Male	54	62	62	65	63	72	71	66		
Australia - Female	9	13	13	15	15	20	11	12		
Total Australia	63	75	75	80	78	92	82	78		
Canada - Male	143	165	186	177	167	168	335	355		
Canada - Female	103	114	118	112	100	102	165	169		
Total Canada	246	279	304	289	267	270	499	524		
France - Male	109	125	137	152	123	163	113	105		
France - Female	41	46	50	47	48	50	53	53		
Total France	150	171	187	199	171	166	166	158		
Central & Eastern Europe - Male					6	7	8	11		
Central & Eastern Europe - Female					1	2	3	5		
Total Central & Eastern Europe					7	9	11	16		
Germany - Male			5	12	19	31	36	40		
Germany - Female			1	1	2	6	8	9		
Total Germany			6	13	21	37	44	49		
Ireland - Male							75	66		
Ireland - Female							23	22		
Total Ireland							98	88		
Netherlands - Male	52	65	94	114	91	84	82	92		
Netherlands - Female	4	7	16	16	17	16	14	12		
Total Netherlands	56	72	110	130	108	100	96	104		
United States - Male			5	7	5	6	16	24		
United States - Female			3	3	4	5	11	13		
Total United States			8	10	9	11	27	38		
Percentage of work performed by workers defined as self-employed	27%	23%	7%	6%	6%	5%	11%	7%		102-8d
Significant variations in employment numbers (e.g. seasonal changes)	None	None	None	None	None	None	None	None		102-8e
Percentage of employees covered by collective bargaining agreements	29%	29%	27%	28%	28%	31%	23%	19%	Zero sites where collective bargaining is at risk.	102-41, 407-1

Material Topic	2012	2013	2014	2015	2016	2017	2018	2019	Context	GRI
DETAILED STAFF DEMOGRAPHICS										
Number of new employee hires by age group, gender and region									2014: FTE=1 permanent new hires, including conversions from contingent workers. 2015+: FTE=1, 0.8 or 0.9 permanent new hires, including conversions from contingent workers.	401-1
Australia: Male Under 30	1	2	8	0	0	0	3	1		
Australia: Female Under 30	0	0	0	0	0	0	0	1		
Australia: Male 30-50	3	3	3	0	0	0	0	2		
Australia: Female 30-50	0	0	0	0	0	0	0	0		
Australia: Male Over 50	1	0	2	0	0	0	0	0		
Australia: Female Over 50	0	0	0	0	0	0	0	0		
Canada: Male Under 30	3	6	13	1	0	3	11	28		
Canada: Female Under 30	2	5	5	1	3	1	7	1		
Canada: Male 30-50	13	23	22	2	0	7	48	49		
Canada: Female 30-50	8	15	11	4	6	3	27	14		
Canada: Male Over 50	4	4	5	2	1	0	4	8		
Canada: Female Over 50	5	4	9	1	0	1	11	3		
Central & Eastern Europe: Male Under 30					0	1	0	0		
Central & Eastern Europe: Female Under 30					0	0	0	0		
Central & Eastern Europe: Male 30-50					0	0	0	0		
Central & Eastern Europe: Female 30-50					1	1	2	1		
Central & Eastern Europe: Male Over 50					0	0	0	0		
Central & Eastern Europe: Female Over 50					0	0	0	0		
France: Male Under 30	2	9	4	0	3	3	5	4		
France: Female Under 30	0	3	4	0	0	0	0	1		
France: Male 30-50	1	17	13	0	0	3	3	5		
France: Female 30-50	0	5	4	1	0	1	2	3		
France: Male Over 50	1	1	1	0	0	1	0	0		
France: Female Over 50	0	0	0	0	0	0	0	0		
Germany: Male Under 30			0	0	0	1	1	0		
Germany: Female Under 30			0	0	1	0	1	1		
Germany: Male 30-50			1	3	0	7	2	3		
Germany: Female 30-50			1	0	1	1	1	1		
Germany: Male Over 50			0	0	1	6	0	0		
Germany: Female Over 50			0	0	0	0	2	0		
Ireland: Male Under 30							4	1		
Ireland: Female Under 30							0	1		
Ireland: Male 30-50							47	2		
Ireland: Female 30-50							15	2		
Ireland: Male Over 50							9	0		
Ireland: Female Over 50							2	0		
Netherlands: Male Under 30	0	2	3	0	0	2	1	2		
Netherlands: Female Under 30	0	2	1	0	0	0	1	2		
Netherlands: Male 30-50	2	15	8	2	0	3	5	7		

Material Topic	2012	2013	2014	2015	2016	2017	2018	2019	Context	GRI
Netherlands: Female 30-50	0	0	3	2	3	0	1	1		
Netherlands: Male Over 50	1	2	6	1	0	2	1	0		
Netherlands: Female Over 50	0	0	1	0	0	0	0	0		
United States: Male Under 30			0	0	0	0	0	1		
United States: Female Under 30			0	0	1	0	0	6		
United States: Male 30-50			2	3	0	1	4	2		
United States: Female 30-50			1	0	0	0	4	2		
United States: Male Over 50			3	0	0	0	2	2		
United States: Female Over 50			2	0	0	0	1	0		
Rate of new employee hires by age group, gender and region									2017+: new hires/avg total employees	401-1
Australia: Male Under 30	33%	40%	70%	0%	0%	0%	0%	0%		
Australia: Female Under 30	0%	0%	0%	0%	0%	0%	0%	0%		
Australia: Male 30-50	19%	18%	11%	0%	0%	0%	0%	0%		
Australia: Female 30-50	0%	0%	0%	0%	0%	0%	0%	0%		
Australia: Male Over 50	90%	0%	10%	0%	0%	0%	0%	0%		
Australia: Female Over 50	0%	0%	0%	0%	0%	0%	0%	0%		
Canada: Male Under 30	38%	38%	58%	0%	0%	1%	2%	3%		
Canada: Female Under 30	22%	36%	36%	0%	43%	0%	1%	0%		
Canada: Male 30-50	17%	25%	20%	2%	0%	1%	7%	6%		
Canada: Female 30-50	14%	21%	17%	7%	11%	1%	4%	2%		
Canada: Male Over 50	13%	11%	13%	6%	4%	0%	1%	1%		
Canada: Female Over 50	16%	12%	29%	3%	0%	0%	2%	0%		
Central & Eastern Europe: Male Under 30						0%	0%	0%		
Central & Eastern Europe: Female Under 30						0%	0%	0%		
Central & Eastern Europe: Male 30-50						0%	0%	0%		
Central & Eastern Europe: Female 30-50					100%	0%	0%	0%		
Central & Eastern Europe: Male Over 50						0%	0%	0%		
Central & Eastern Europe: Female Over 50						0%	0%	0%		
France: Male Under 30	18%	45%	17%	0%	17%	1%	1%	0%		
France: Female Under 30	0%	43%	36%	0%	0%	0%	0%	0%		
France: Male 30-50	30%	34%	21%	0%	0%	1%	0%	1%		
France: Female 30-50	0%	19%	14%	3%	0%	0%	0%	0%		
France: Male Over 50	30%	30%	2%	0%	0%	0%	0%	0%		
France: Female Over 50	0%	19%	0%	0%	0%	0%	0%	0%		
Germany: Male Under 30			0%	NA	0%	0%	0%	0%		
Germany: Female Under 30			0%	NA	100%	0%	0%	0%		
Germany: Male 30-50			13%	60%	0%	1%	0%	0%		
Germany: Female 30-50			50%	0%	67%	0%	0%	0%		
Germany: Male Over 50			0%	NA	200%	1%	0%	0%		
Germany: Female Over 50			0%	NA	0%	0%	0%	0%		
Ireland: Male Under 30							1%	0%		
Ireland: Female Under 30							0%	0%		
Ireland: Male 30-50							7%	0%		
Ireland: Female 30-50							2%	0%		
Ireland: Male Over 50							1%	0%		

Material Topic	2012	2013	2014	2015	2016	2017	2018	2019	Context	GRI
Ireland: Female Over 50							0%	0%		
Netherlands: Male Under 30	0%	10%	50%	0%	0%	0%	0%	0%		
Netherlands: Female Under 30	0%	0%	25%	0%	0%	0%	0%	0%		
Netherlands: Male 30-50	14%	56%	20%	6%	0%	1%	1%	1%		
Netherlands: Female 30-50	0%	0%	150%	29%	200%	0%	0%	0%		
Netherlands: Male Over 50	30%	25%	32%	7%	0%	0%	0%	0%		
Netherlands: Female Over 50	0%	0%	40%	0%	0%	0%	0%	0%		
United States: Male Under 30			0%	NA	0%	0%	0%	0%		
United States: Female Under 30			0%	NA	100%	0%	0%	1%		
United States: Male 30-50			200%	100%	0%	0%	1%	0%		
United States: Female 30-50			200%	0%	0%	0%	1%	0%		
United States: Male Over 50			200%	0%	0%	0%	0%	0%		
United States: Female Over 50			200%	0%	0%	0%	0%	0%		
Employee turnover numbers by age group, gender and region										401-1
Australia: Male Under 30	0	0	2	0	0	0	0	1		
Australia: Female Under 30	0	0	0	0	0	0	0	0		
Australia: Male 30-50	1	5	1	1	0	0	1	2		
Australia: Female 30-50	0	0	0	0	0	1	0	0		
Australia: Male Over 50	0	1	1	2	0	1	0	1		
Australia: Female Over 50	0	0	0	0	0	0	1	0		
Canada: Male Under 30	0	3	2	3	1	2	2	2		
Canada: Female Under 30	2	1	1	3	0	1	1	3		
Canada: Male 30-50	10	6	3	6	3	8	11	17		
Canada: Female 30-50	5	8	4	7	7	5	10	7		
Canada: Male Over 50	4	1	1	8	8	1	5	6		
Canada: Female Over 50	3	10	2	5	6	4	6	7		
Central & Eastern Europe: Male Under 30					0	0	0	0		
Central & Eastern Europe: Female Under 30					0	0	0	0		
Central & Eastern Europe: Male 30-50					0	0	0	0		
Central & Eastern Europe: Female 30-50					0	0	0	1		
Central & Eastern Europe: Male Over 50					0	0	0	0		
Central & Eastern Europe: Female Over 50					0	0	0	0		
France: Male Under 30	0	1	1	0	0	0	2	4		
France: Female Under 30	0	0	1	0	0	0	0	0		
France: Male 30-50	2	5	1	0	1	1	0	5		
France: Female 30-50	0	1	0	0	0	0	0	1		
France: Male Over 50	2	4	2	3	1	10	2	3		
France: Female Over 50	0	0	0	1	0	0	1	2		
Germany: Male Under 30				0	0	0	0	0		
Germany: Female Under 30				0	0	0	0	0		
Germany: Male 30-50				0	0	2	1	0		
Germany: Female 30-50				0	0	1	0	0		
Germany: Male Over 50				0	0	0	1	0		
Germany: Female Over 50				0	0	0	0	0		
Ireland: Male Under 30							0	1		

Material Topic	2012	2013	2014	2015	2016	2017	2018	2019	Context	GRI
Ireland: Female Under 30							0	0		
Ireland: Male 30-50							1	2		
Ireland: Female 30-50							0	0		
Ireland: Male Over 50							0	0		
Ireland: Female Over 50							0	0		
Netherlands: Male Under 30	1	0	0	0	0	0	0	1		
Netherlands: Female Under 30	0	0	0	0	0	0	1	0		
Netherlands: Male 30-50	0	0	3	2	5	4	2	1		
Netherlands: Female 30-50	0	0	1	0	2	1	0	1		
Netherlands: Male Over 50	2	0	1	0	2	1	4	0		
Netherlands: Female Over 50	0	0	0	0	0	0	0	0		
United States: Male Under 30				0	0	0	0	0		
United States: Female Under 30				0	0	0	0	0		
United States: Male 30-50				0	1	0	2	1		
United States: Female 30-50				0	0	0	0	2		
United States: Male Over 50				0	0	1	1	0		
United States: Female Over 50				0	0	0	1	2		
Employee turnover rate by age group, gender and region (percent)									For 2017+, we changed our definition to align with GRI Standards, calculating this as turnover in the category/ total # of employees	401-1
Australia: Male Under 30	0	0	40%	0%	0%	0.0%	0.0%	0.1%		
Australia: Female Under 30	0	0	0%	NA	0%	0.0%	0.0%	0.0%		
Australia: Male 30-50	7	30	6%	5%	0%	0.0%	0.1%	0.2%		
Australia: Female 30-50	0	0	0%	0%	0%	0.2%	0.0%	0.0%		
Australia: Male Over 50	0	9	10%	20%	0%	0.2%	0.0%	0.1%		
Australia: Female Over 50	0	0	0%	0%	0%	0.0%	0.1%	0.0%		
Canada: Male Under 30	0	25	12%	16%	7%	0.4%	0.3%	0.2%		
Canada: Female Under 30	21	9	10%	32%	0%	0.2%	0.1%	0.4%		
Canada: Male 30-50	13	7	3%	6%	7%	1.6%	1.6%	2.1%		
Canada: Female 30-50	9	13	7%	12%	13%	1.0%	1.4%	0.9%		
Canada: Male Over 50	13	3	3%	25%	28%	0.2%	0.7%	0.7%		
Canada: Female Over 50	10	31	7%	14%	20%	0.8%	0.9%	0.9%		
Central & Eastern Europe: Male Under 30					0	0.0%	0.0%	0.0%		
Central & Eastern Europe: Female Under 30					0	0.0%	0.0%	0.0%		
Central & Eastern Europe: Male 30-50					0	0.0%	0.0%	0.0%		
Central & Eastern Europe: Female 30-50					0	0.0%	0.0%	0.1%		
Central & Eastern Europe: Male Over 50					0	0.0%	0.0%	0.0%		
Central & Eastern Europe: Female Over 50					0	0.0%	0.0%	0.0%		
France: Male Under 30	0	6	5%	0%	0%	0.0%	0.3%	0.5%		
France: Female Under 30	0	0	14%	0%	0%	0.0%	0.0%	0.0%		
France: Male 30-50	5	12	2%	0%	2%	0.2%	0.0%	0.6%		
France: Female 30-50	0	4	0%	0%	0%	0.0%	0.0%	0.1%		
France: Male Over 50	6	11	6%	9%	3%	2.0%	0.3%	0.4%		
France: Female Over 50	0	0	0%	14%	0%	0.0%	0.1%	0.2%		
Germany: Male Under 30				NA	0%	0.0%	0.0%	0.0%		

Material Topic	2012	2013	2014	2015	2016	2017	2018	2019	Context	GRI
Germany: Female Under 30				NA	0%	0.0%	0.0%	0.0%		
Germany: Male 30-50				0%	0%	0.4%	0.1%	0.0%		
Germany: Female 30-50				0%	0%	0.2%	0.0%	0.0%		
Germany: Male Over 50				NA	0%	0.0%	0.1%	0.0%		
Germany: Female Over 50				NA	0%	0.0%	0.0%	0.0%		
Ireland: Male Under 30							0.0%	0.1%		
Ireland: Female Under 30							0.0%	0.0%		
Ireland: Male 30-50							0.1%	0.2%		
Ireland: Female 30-50							0.0%	0.0%		
Ireland: Male Over 50							0.0%	0.0%		
Ireland: Female Over 50							0.0%	0.0%		
Netherlands: Male Under 30	0	0	0%	0%	0%	0.0%	0.0%	0.1%		
Netherlands: Female Under 30	0	0	0%	0%	0%	0.0%	0.1%	0.0%		
Netherlands: Male 30-50	0	0	13%	6%	16%	0.8%	0.3%	0.1%		
Netherlands: Female 30-50	0	0	50%	0%	67%	0.2%	0.0%	0.1%		
Netherlands: Male Over 50	44	0	12%	0%	14%	0.2%	0.6%	0.0%		
Netherlands: Female Over 50	0	0	0%	0%	0%	0.0%	0.0%	0.0%		
United States: Male Under 30				NA	0%	0.0%	0.0%	0.0%		
United States: Female Under 30				NA	0%	0.0%	0.0%	0.0%		
United States: Male 30-50				0%	3%	0.0%	0.3%	0.1%		
United States: Female 30-50				0%	0%	0.0%	0.0%	0.2%		
United States: Male Over 50				0%	0%	0.2%	0.1%	0.0%		
United States: Female Over 50				0%	0%	0.0%	0.1%	0.2%		
Total Global Turnover Rate			5.6%	7.9%	7.4%	8.8%	8.3%	9.2%	Recalculated in 2018 to reflect turnover based on average headcount instead of year-end	
Net employment creation, permanent employees	15	72	109	-18	-16	4	171	84		401-1
PARENTAL LEAVE										
Parental Leave (includes maternity, paternity and parental leaves)									All Vermilion employees who experience the birth or adoption of a child are eligible for maternity, paternity and parental leave in accordance with local legislation	401-3
Proportion of male employees entitled to parental leave	100	100	100	100	100	100	100	100		
Proportion of female employees entitled to parental leave	100	100	100	100	100	100	100	100		
Total proportion of employees entitled to parental leave %	100	100	100	100	100	100	100	100		
Number of male employees who took parental leave	1	1	6	5	7	7	6	5	Based on employees whose leave finished that year	
Number of female employees who took parental leave	4	9	16	4	5	6	7	9	Based on employees whose leave finished that year	
Total number of employees who took parental leave	5	10	22	9	12	13	13	14		
Number of employees who took parental leave by gender:										
Number of male employees returned after parental leave	1	1	6	5	7	7	6	5	Based on employees whose leave finished that year and returned to work	
Number of female employees returned after parental leave	3	9	9	6	5	5	7	8	Based on employees whose leave finished that year and returned to work	

Material Topic	2012	2013	2014	2015	2016	2017	2018	2019	Context	GRI
Total number of employees returned after parental leave	4	10	15	11	12	12	13	13		
Rate of male employees who returned after parental leave	100%	100%	100%	100%	100%	100%	100%	100%		
Rate of female employees who returned after parental leave	75%	100%	56%	100%	100%	83%	100%	90%		
Retention: # of male employees 12 months after parental leave					5	6	6	5	Based on employees returned in previous year	
Retention: # of female employees 12 months after parental leave					5	2	5	7	Based on employees returned in previous year	
12-month retention rate: male employees					100%	86%	100%	83%		
12-month retention rate: female employees					100%	66%	100%	100%		
TRAINING AND EDUCATION - PERMANENT EMPLOYEES										404-1
Hours of Training - Male	3,419	4,297	12,074	6,054	7,363	6,888	10,105	12,687		
Hours of Training - Female	2,471	3,447	3,918	1,823	1,550	1,638	2,918	2,927		
Total Hours of Training - Employees	5,891	7,744	15,992	7,877	8,913	8,526	13,023	15,614		
Average Hours of Training per employee - Male	14	14	33	17	21	19	21	22		
Average Hours of Training per employee - Female	18	22	23	11	10	11	14	13		
Average Hours of Training - Employees	16	17	30	15	18	17	19	20		
Administration Staff Hours of Training - Male	940	1,051	1,156	479	575	391	684	531		
Administration Staff Hours of Training - Female	1,632	2,206	2,873	1,362	900	877	1,427	1,388		
Production Staff Hours of Training - Male	2,480	3,246	10,919	5,575	6,787	6,497	9,422	12,156		
Production Staff Hours of Training - Female	839	1,241	1,045	462	650	391	1,491	1,539		
Administration Staff Average Hours of Training - Male	17	5	17	18	8	5	9	6	2014 and 2015: per employee trained	
Administration Staff Average Hours of Training - Female	20	37	22	18	8	8	11	9	2016+: per employee total	
Production Staff Average Hours of Training - Male	34	13	32	36	24	23	23	26		
Production Staff Average Hours of Training - Female	10	23	26	23	20	24	19	25		
PERFORMANCE AND CAREER DEVELOPMENT - PERMANENT EMPLOYEES										404-3
Male employees with annual performance/career review			93%	94%	95%	95%	100%	98%		
Female employees with annual performance/career review			94%	97%	90%	94%	97%	95%		
Total employees with annual performance/career review		44%	93%	95%	93%	92%	99%	97%		
DEFINED BENEFIT PENSION PLAN - NETHERLANDS										201-3
Level of coverage of the fund's assets compared to obligations	100%	100%	100%	100%	100%	100%	100%	100%		
Percentage of salary contributed by employee	6%	6%	6%	6%	6%	6%	6%	6%		
Contribution of employer: Vermilion pays an annual premium based on gender, age, salary and future working years.	Premium	Premium	Premium	Premium	Premium	Premium	Premium	Premium		
Rate of participation in defined contribution pension plan - NL	0%	0%	0%	10%	27%	38%	46%	100%	Defined contribution plan began in 2015	
Rate of participation in defined benefit pension plan - NL	100%	100%	100%	90%	73%	62%	54%	0%	Defined benefit plan contract expired in 2019	

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MATERIAL TOPIC: ENERGY & EMISSIONS	2012	2013	2014	2015	2016	2017	2018	2019	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	13,043,142	14,966,825	18,094,145	20,046,530	23,250,150	24,827,665	31,853,185	36,630,232		
Annual Production - Annual Report minus non-operated volumes as referenced in CDP submissions: boe	13,043,142	14,966,825	18,094,145	19,084,755	19,236,960	21,273,660	28,712,829	36,604,811	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 - Actual flows through operated batteries: boe	Not tracked	Not tracked	17,533,452	18,893,978	18,328,179	19,102,132	29,440,819	44,680,354	Use for energy and emissions intensity calculations to ensure numerator/denominator alignment	
ENERGY										
Scope 1: Energy consumption within organization, non-renewable (natural gas, propane liquid, diesel fuel and vehicle fuel): GJ	2,724,115	2,758,361	3,012,091	2,970,235	2,869,053	2,975,227	4,132,866	5,554,821		302-1
Canada	1,897,339	1,977,236	2,130,186	2,022,377	1,939,422	1,929,996	2,809,879	3,592,038	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	
France	7,062	26,016	35,351	19,925	25,136	20,583	0	0		
Netherlands	31,897	31,248	33,842	14,148	50,336	77,023	60,390	72,585		
Australia	787,817	723,861	811,060	793,525	743,563	812,226	864,934	722,623		
United States			1,652	120,259	110,596	114,077	199,893	204,576		
Germany						21,323	120,844	135,350		
Central and Eastern Europe - Hungary and Croatia							2,932	9,236		
Ireland							73,996	818,413	Increase reflects Corrib change to operating control ~1 month in 2018 and full year 2019	
Scope 2: Energy consumption outside organization, non-renewable (electricity): GJ	1,011,274	972,957	1,022,429	1,198,584	858,091	833,841	1,403,021	2,077,646	1 MWh = 3.6 GJ	302-2
Canada	169,481	169,481	181,438	223,557	238,787	232,346	750,356	1,352,186	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	
France	531,306	562,861	551,298	656,877	606,370	581,926	623,641	679,640		
Netherlands	309,845	239,742	287,681	313,423	8,590	0	0	0	Purchase of Guarantees of Origin of green electricity 2017-2019	
Australia	642	867	695.04	772	787	727	669	587		
United States			1317.35	3,955	3,556	4,229	10,969	30,803		
Germany						14,612	17,369	11,592		
Central and Eastern Europe - Hungary and Croatia							17	0		
Ireland							0	2,838	Increase reflects Corrib change to operating control ~1 month in 2018 and full year 2019	
Energy intensity ratio Scope 1: GJ/boe							0.156	0.140		
Energy intensity ratio Scope 2: GJ/boe							0.044	0.048		
Energy intensity ratio Scope 1+2: GJ/boe	0.29	0.25	0.23	0.22	0.20	0.20	0.19	0.17	2012-2013: operated battery energy use/operated and financial production 2014+: operated battery energy use/operated battery production	302-3
Renewable energy	2012	2013	2014	2015	2016	2017	2018	2019		
Total amount invested in renewable energy, CAD	\$140,000	\$140,000	\$147,000	\$42,600	\$434,385	\$446,385	\$1,306,667	\$446,778		OG2
Canada	\$0	\$0	\$0	\$0	\$0	\$0	\$391,000	\$220,000	2018: solar panels in ~20 locations; 2019: EFOY fuel cell units	
France	\$140,000	\$140,000	\$0	0	\$0	\$12,000	\$312,000	\$190,000	H2020 MEET project; 3 geothermal from produced water projects	
Netherlands	\$0	\$0	\$147,000	\$42,600	\$434,385	\$434,385	\$603,667	\$36,778		
Australia	\$0	\$0	\$0	0	\$0	\$0	\$0	\$0		
United States				0	\$0	\$0	\$0	\$0		
Germany						\$0	\$0	\$0		
Central and Eastern Europe - Hungary and Croatia							\$0	\$0		
Ireland							\$0	\$0		
Renewable energy investment: % of capital expenditure	0.03	0.03	0.02	0.01	0.2	0.1	0.3	0.1		OG2
Renewable energy GHG emissions avoided: tCO2e	10,000	10,000	10,000	10,000	10,453	22,333	24,566	24,623		OG3, OG4, OG5
Renewable energy generated by source (actual energy content transferred): MWh	31,380	31,380	31,380	31,380	32,800	70,080	77,088	77,095		
Canada	0	0	0	0	0	0	0	7	2019: EFOY fuel cell units	
France	31,380	31,380	31,380	31,380	32,800	70,080	77,088	77,088	2 geothermal from produced water projects in operation	
Netherlands	0	0	0	0	0	0	0	0		
Australia	0	0	0	0	0	0	0	0		
United States				0	0	0	0	0		
Germany						0	0	0		
Central and Eastern Europe - Hungary and Croatia							0	0		
Ireland							0	0		

MATERIAL TOPIC: ENERGY & EMISSIONS	2012	2013	2014	2015	2016	2017	2018	2019	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	13,043,142	14,966,825	18,094,145	20,046,530	23,250,150	24,827,665	31,853,185	36,630,232		
Annual Production - Annual Report minus non-operated volumes as referenced in CDP submissions: boe	13,043,142	14,966,825	18,094,145	19,084,755	19,236,960	21,273,660	28,712,829	36,604,811	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 - Actual flows through operated batteries: boe	Not tracked	Not tracked	17,533,452	18,893,978	18,328,179	19,102,132	29,440,819	44,680,354	Use for energy and emissions intensity calculations to ensure numerator/denominator alignment	
EMISSIONS	2012	2013	2014	2015	2016	2017	2018	2019		GRI
Percentage of total emissions under emissions-limiting regulations								91%	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	288,781	310,285	511,213	441,193	355,746	344,186	742,175	858,823		305-1
CO ₂ Scope 1 emissions (excluding CH ₄ and N ₂ O): tonne	250,063	259,849	442,839	348,002	283,618	278,143	456,817	555,687	Hydrofluorocarbons, Perfluorocarbons, Sulfur hexafluoride, VOCs, particulates not tracked	305-1, SS
Canada			310,306	202,942	126,429	133,430	300,947	374,495	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	
France			57,374	48,525	50,238	63,197	61,169	64,419		
Netherlands			27,871	43,058	52,159	23,954	15,198	11,403		
Australia			45,822	46,013	40,783	42,409	46,587	42,024		
United States			1,466	7,464	14,009	13,693	19,152	15,409		
Germany						1,460	9,710	4,069		
Central and Eastern Europe - Hungary and Croatia							285	2,260		
Ireland							3,769	41,608	Increase reflects Corrib change to operating control ~1 month in 2018 and full year 2019	
Methane: tCO ₂ e	38,718	50,436	68,174	92,927	71,890	65,782	284,762	302,027		SS
Canada	38,718	50,436	16,274	52,975	32,948	30,847	241,279	258,500		
France			12,865	12,852	10,565	9,236	10,197	8,499		
Netherlands			22,233	9,436	10,419	8,315	5,318	4,018		
Australia			16,727	17,294	16,959	13,611	16,961	18,601		
United States			74	371	998	370	1,468	3,981		
Germany						3,403	9,101	7,492		
Central and Eastern Europe - Hungary and Croatia							384	244		
Ireland							54	692	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		EM-EP-110a.1.3
Nitrous Oxide (N ₂ O): tCO ₂ e	Not tracked	Not tracked	201	263	237	260	596	1,109		SS
Canada	Not tracked	Not tracked	0	50	50	99	378	465		
France	Not tracked	Not tracked	109	118	113	102	107	547		
Netherlands	Not tracked	Not tracked	0	0	0	0	22	7		
Australia	Not tracked	Not tracked	92	96	66	57	82	68		
United States	Not tracked	Not tracked	0	0	7	1	5	16		
Germany						1	2	1		
Central and Eastern Europe - Hungary and Croatia							0	5		
Ireland							0	0		
Scope 1 GHG emissions intensity, oil and gas production: tCO ₂ e/boe	0.022	0.021	0.029	0.023	0.019	0.018	0.025	0.019	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: tCO ₂ e	85,223	79,309	73,410	96,600	69,318	60,904	173,847	288,345		305-2
Canada			41,007	48,900	60,064	55,088	160,369	269,349	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	
France			12,251	7,619	7,560	8,959	11,444	6,808		
Netherlands			19,908	39,631	1,271	(4,328)	0	0		
Australia			151	163	166	141	130	114		
United States			93	288	257	308	787	10,231		
Germany						735	1,090	1,575		
Central and Eastern Europe - Hungary and Croatia							1	0		
Ireland							25	268		
Scope 2 GHG emissions intensity: tCO ₂ e per boe	0.007	0.005	0.004	0.005	0.004	0.003	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: tCO ₂ e per boe	0.029	0.026	0.033	0.028	0.023	0.021	0.031	0.026	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: tCO ₂ e	2,839	9,860	2,997,538	7,858,296	7,697,489	8,393,391	12,408,270	14,188,122		305-3
Biogenic CO ₂ Scope 3 emissions	0	0	0	0	0	0	0	0		305-3

MATERIAL TOPIC: ENERGY & EMISSIONS	2012	2013	2014	2015	2016	2017	2018	2019	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	13,043,142	14,966,825	18,094,145	20,046,530	23,250,150	24,827,665	31,853,185	36,630,232		
Annual Production - Annual Report minus non-operated volumes as referenced in CDP submissions: boe	13,043,142	14,966,825	18,094,145	19,084,755	19,236,960	21,273,660	28,712,829	36,604,811	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 - Actual flows through operated batteries: boe	Not tracked	Not tracked	17,533,452	18,893,978	18,328,179	19,102,132	29,440,819	44,680,354	Use for energy and emissions intensity calculations to ensure numerator/denominator alignment	
Estimated Scope 3 associated with product end use: tCO2e	Not tracked	Not tracked	2,250,071	7,160,865	7,010,867	7,674,486	12,408,270	14,188,122		SS
Emissions of ozone-depleting substances	0	0	0	0	0	0	0	0		305-6
NOx			2,847	0	20	26	29	224		305-7
Canada			1,971	Not Tracked	Not Tracked	Not Tracked	Not Tracked	Not Tracked		
France			876	Not Tracked	15	18	22	51		
Netherlands			0	Not Tracked	6	7	7	2		
Australia			0	Not Tracked	0	Not Tracked	Not Tracked	171		
United States			0	Not Tracked	0	Not Tracked	Not Tracked	Not Tracked		
Germany						Not Tracked	Not Tracked	Not Tracked		
Central and Eastern Europe - Hungary and Croatia							Not Tracked	Not Tracked		
Ireland							Not Tracked	Not Tracked		
SO2			2847	544	675	675	736	3907		305-7
Canada			1971	181	364	166	198	3,219	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	
France			876	363	300	509	538	682		
Netherlands			0	0	0	0	0	0		
Australia			0	0	0	0	0	0		
United States			0	0	10	0	0	5		
Germany						0	0	0		
Central and Eastern Europe - Hungary and Croatia							0	0		
Ireland							0	0		
Volatile Organic Compounds (VOCs) (non-methane)								Not Tracked	Volatile organic compounds that participate in atmospheric photochemical reactions; excludes carbon monoxide, carbon dioxide and methane	305-7
Canada								Not Tracked		
France								Not Tracked		
Netherlands								Not Tracked		
Australia								Not Tracked		
United States								Not Tracked		
Germany								Not Tracked		
Central and Eastern Europe - Hungary and Croatia								Not Tracked		
Ireland								Not Tracked		
Particulate Matter (PM10)								Not Tracked	Airborne finely divided solid or liquid material with an aerodynamic diameter ≤ 10 micrometers	305-7
Canada								Not Tracked		
France								Not Tracked		
Netherlands								Not Tracked		
Australia								Not Tracked		
United States								Not Tracked		
Germany								Not Tracked		
Central and Eastern Europe - Hungary and Croatia								Not Tracked		
Ireland								Not Tracked		
FLARING AND VENTING	2012	2013	2014	2015	2016	2017	2018	2019		
Volume of flared hydrocarbon: e3m3/yr	15,032.79	17,891.39	71,683	54,405	29,266	35,920	69,906	78,962	Note that all flared volumes are reported, not just continous flares	OG6
Canada	2,173	3,137	46,885	35,000	8,168	12,023	45,455	55,526	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	OG6
France	11,347	14,108	22,284	17,472	16,564	21,492	21,261	20,123		OG6
Netherlands	779	354	1,771	371	344	472	201	235		OG6
Australia	734	293	513	442	263	309	788	1,351		OG6

MATERIAL TOPIC: ENERGY & EMISSIONS	2012	2013	2014	2015	2016	2017	2018	2019	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	13,043,142	14,966,825	18,094,145	20,046,530	23,250,150	24,827,665	31,853,185	36,630,232		
Annual Production - Annual Report minus non-operated volumes as referenced in CDP submissions: boe	13,043,142	14,966,825	18,094,145	19,084,755	19,236,960	21,273,660	28,712,829	36,604,811	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 - Actual flows through operated batteries: boe	Not tracked	Not tracked	17,533,452	18,893,978	18,328,179	19,102,132	29,440,819	44,680,354	Use for energy and emissions intensity calculations to ensure numerator/denominator alignment	
United States			230	1,119	3,927	1,561	1,858	780		OG6
Germany						64	289	23		OG6
Central and Eastern Europe - Hungary and Croatia							32	763		OG6
Ireland							22	161		OG6
Volume of continuously vented hydrocarbon: e3m3/yr	2,861.71	3,818.12	3,583	3,714	2,941	3,256	12,318	14,222		OG6
Canada	864	1,069	1,156	1,007	645	648	9,447	11,424	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	OG6
France	100	953	963	1,185	840	773	847	729		OG6
Netherlands	732	709	381	303	196	194	260	62		OG6
Australia	1,166	1,088	796	1,197	1,180	919	1,097	1,390		OG6
United States			286	23	79	9	25	48		
Germany						713	617	526		OG6
Central and Eastern Europe - Hungary and Croatia							21	11		OG6
Ireland							3	33		OG6
Flaring/Venting Intensity based on production: e3m3/boe	0.0014	0.0015	0.0043	0.0031	0.0018	0.0021	0.0028	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	Vermilion does not develop shale reservoirs; we use fracturing only in semi-conventional clastic reservoirs, which are much less frac intensive than shale development, requiring much lower volumes of sand and water. Reporting of % fracking began in 2018.	
Percentage of public disclosure of hydraulic fracturing fluids									All fracturing fluids are disclosed through FracFocus	
Canada								100		EN-EP-140a.3
United States								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	From Saskatchewan assets acquired in 2018: non-operated	
CCS ops percentage of total (global) oil and NGLs produced: equity basis							5	4	Global oil & NGLs 2018 Equity/Financial Control: 45,548 bbl/d Global oil & NGLs 2019 Equity/Financial Control: 55,886 bbl/d	

MATERIAL TOPIC: WATER, INCLUDING PRODUCED WATER	2012	2013	2014	2015	2016	2017	2018	2019	CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	13,043,142	14,966,825	18,094,145	20,046,530	23,250,150	24,827,665	31,853,185	36,630,232		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	13,043,142	14,966,825	18,094,145	19,084,755	19,236,960	21,273,660	28,712,829	36,604,811	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 - Actual flows through operated batteries: boe			17,533,452	18,893,978	18,328,179	19,102,132	29,440,819	44,708,966	Use for water intensity calculations to ensure numerator/denominator alignment	
WATER WITHDRAWALS	2012	2013	2014	2015	2016	2017	2018	2019		GRI
Total water withdrawal by source including produced water: ML			24,248	25,339	25,084	25,880	43,027	64,167	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			2,267	2,617	2,337	2,441	17,819	39,234		
France			14,097	14,169	14,293	14,407	15,730	14,863		
Netherlands			13	101	37	41	46	25		
Australia			7,856	8,364	8,344	8,400	8,795	9,280		
United States			16	88	74	90	108	326		
Germany						502	526	397		
Central and Eastern Europe - Hungary and Croatia							1	4		
Ireland							2	36		
Total water withdrawal by source excluding produced water: m3	996	820	1,092	881	539	821	752	1,019		303-1
Canada			227	92	31	82	98	187	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	
France			682	563	478	504	625	494		
Netherlands			0	0	20	30	27	11		
Australia			183	208	-	183	-	198		
United States			0	18	9	23	-	106		
Germany						0	0	3		
Central and Eastern Europe - Hungary and Croatia							1	4		
Ireland							2	16	Increase reflects Corrib change to operating control ~1 month in 2018 and full year 2019	
Surface/Freshwater, including rainwater, wetlands, rivers, lakes: ML	349	313	120	26	16	12	1	13	Total dissolved solids <10,000mg/L	303-1
Canada			120	26	7	12	1.210	8.830	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	
France			0	0	0	0	0.040	0.049		
Netherlands			0	0	0	0	0	4		
Australia			0	0	0	0	0	0		
United States			0	0	9	0	0	0		
Germany						0	0	0		
Central and Eastern Europe - Hungary and Croatia							0	0		
Ireland							0	0		
Total surface freshwater intensity: ML/operated boe							0.00000004	0.00000029		
Surface/Brackish water, including oceans: ML			183	208	208	183	213	198	Total dissolved solids >10,000mg/L	
Australia			183	208	208	183	213	198	Only applicable in Australia	
Groundwater - renewable: ML	641	490	756	612	487	569	700	622	Generally shallower groundwater resources that can be replenished/recharged within ~50 years	303-1
Canada			101	62	24	62	82	128	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	
France			654	550	463	494	618	494		
Netherlands			0	0	0	12	1	0		
Australia			0	0	0	0	0	0		
United States			0	0	0	0	0	0		
Germany							0	0		
Central and Eastern Europe - Hungary and Croatia							0	0		
Ireland							0	0		
Groundwater - non-renewable, excluding produced water: ML			0	18	13	23	47	106	Generally deeper groundwater resources that have negligible recharge within ~50 years	
United States			0	18	13	23	47	106		
Groundwater - non-renewable, produced water: ML	1,560	9,131	23,156	24,458	24,546	25,059	42,274	63,148	Includes formation water, flow-back water and condensation water	
Canada	1,560	1,600	2,040	2,525	2,306	2,359	17,720	39,047		
France		Not tracked	13,415	13,606	13,815	13,903	15,105	14,370		
Netherlands		Not tracked	13	101	17	11	20	14		
Australia		7,531	7,673	8,157	8,344	8,217	8,795	9,082		
United States			16	70	64	67	108	221		
Germany						502	526	395		
Central and Eastern Europe - Hungary and Croatia							0	0		
Ireland							0	20		
Third-party sources - Municipal water supplies or utilities: ML	7	16	34	14	36	18	51	49		303-1
Canada			6	2	0	7	15	19		
France			27	13	15	10	7	0		
Netherlands			0	0	20	0	26	8		
Australia			0	0	0	0	0	0		

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MATERIAL TOPIC: WATER, INCLUDING PRODUCED WATER	2012	2013	2014	2015	2016	2017	2018	2019	CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	13,043,142	14,966,825	18,094,145	20,046,530	23,250,150	24,827,665	31,853,185	36,630,232		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	13,043,142	14,966,825	18,094,145	19,084,755	19,236,960	21,273,660	28,712,829	36,604,811	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 - Actual flows through operated batteries: boe			17,533,452	18,893,978	18,328,179	19,102,132	29,440,819	44,708,966	Use for water intensity calculations to ensure numerator/denominator alignment	
Central and Eastern Europe - Hungary and Croatia								0		
Ireland								0		
Third-party sources - Municipal water supplies or utilities: ML								289		
Canada								178		
France								0		
Netherlands								20		
Australia								0		
United States								51		
Germany								2		
Central and Eastern Europe - Hungary and Croatia								4		
Ireland								34		
Other - Water still in storage - NL only								0	320 m3 in storage	
Water bodies significantly affected by discharges of water	0	0	0	0	0	0	0	0	Defined as a sustained inability to meet human and/or ecological requirements based on availability, quality or accessibility	306-5
Volume and % of produced water by disposal method:										OG5
Reused: % and volume	0	0	0	0	0	0	0	0		OG5
Recycled: %	0	0	0.02	0.06	0	0	0	0		
Recycled - volume: ML	0	0	5	15	0	0	1	0		OG5
Canada	0	0	5	15	0	0	0	0		
France	0	0	0	0	0	0	0	0		
Netherlands	0	0	0	0	0	0	0	0	Restated 2016-2018 to zero in 2020 to align with CDP methodology	
Australia	0	0	0	0	0	0	0	0		
United States			0	0	0	0	0	0		
Germany						0	1	0		
Central and Eastern Europe - Hungary and Croatia							0	0		
Ireland							0	0		
Reinjected: %	100	100	67	67	66	67	79	86		
Reinjected - volume: ML	1,560	1,600	15,478	16,286	16,195	16,796	33,450	54,037		OG5
Canada	1,560	1,600	2,040	2,525	2,309	2,338	17,728	39,047	Increase reflects acquisition of Saskatchewan assets partial year 2018 and full year 2019	
France			13,415	13,606	13,815	13,903	15,105	14,370		
Netherlands			8	86	7	4	9	5		
Australia			0	0	0	0	0	0		
United States			16	70	64	49	83	221		
Germany						502	526	395		
Central and Eastern Europe - Hungary and Croatia							0	0		
Ireland							0	0		
Hydrocarbon discharged within produced water: tonnes	242	244	113	110	104	115	70	73	Refers to discharges to surface water or renewable (shallow) groundwater	OG5
Canada			0	0	0	0	0	0		OG6
France			0	0	0	0	0	0		OG6
Netherlands			0	0	0	0	0	0		OG6
Australia			113	110	104	115	70	73		OG6
United States			0	0	0	0	0	0		OG6
Germany						0	0	0		
Central and Eastern Europe - Hungary and Croatia							0	0		
Ireland							0.4	0		
Annual Water Consumption: ML								0	Total water withdrawals - total water discharges	
Percentage of workers with fully-functioning, safely managed WASH (water, sanitation and hygiene facilities)								100	New data reported beginning in 2019 to align with CDP	

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MATERIAL TOPIC - WASTE	2012	2013	2014	2015	2016	2017	2018	2019			CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	13,043,142	14,966,825	18,094,145	20,046,530	23,250,150	24,827,665	31,853,185		36,630,232			
Annual Production - Annual Report minus non-operated volumes (CDP): boe	13,043,142	14,966,825	18,094,145	19,084,755	19,236,960	21,273,660	28,712,829		36,604,811		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 - Actual flows through operated batteries: boe			17,533,452	18,893,978	18,328,179	19,102,132	29,440,819		44,708,966		Use for intensity calculations to ensure numerator/denominator alignment	
WASTE	2012	2013	2014	2015	2016	2017	2018	2019			Waste disposal data based on direct confirmation or information provided by the waste disposal contractor	GRI
								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	87,189	114,227	113,881	82,143	58,726	124,160	151,230	17,637	118,483	136,120		306-2
Canada			112,658	50,170	21,624	52,056	56,140	8,010	70,667	78,677		
France			162	8,420	2,644	2,674	4,505	1,384	2,589	3,972		
Netherlands			114	4,501	18,909	51,386	58,003	7,694	0	7,694		
Australia			0	450	1,700	475	665	89	465	554		
United States			948	18,602	13,850	17,568	28,578	0	37,753	37,753		
Germany						0	602	304	2,201	2,505		
Central and Eastern Europe - Hungary and Croatia							877	0	0	0		
Ireland							1,860	156	4,808	4,965		
Reuse: metric tonne	0	7,400	21,935	78	114	1,999	585	0	11	11		306-2
Canada			21,934	0	0	1,891	0	0	0	0		
France			0	0	0	0	0	0	0	0		
Netherlands			0	24	24	0	562	0	0	0		
Australia			1	54	90	108	23		11	11		
United States			0	0	0	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		
Recycling: metric tonne	36	13	107	2,855	16,247	51,402	49,422	1,150	5,078	6,228		306-2
Canada			25	43	13	218	13	0	42	42		
France			29	2,091	170	189	305	139	46	185		
Netherlands			12	664	16,016	50,923	48,956	1,005	0	1,005	2019+ onwards: definition changed to better align with GRI 306-2	
Australia			42	58	49	72	143	2	71	73		
United States			0	0	0	0	0	0	136	136		
Germany						0	0	0	2	2		
Central and Eastern Europe - Hungary and Croatia							0	0	0	0		
Ireland							5	4	4,781	4,785		
Recovery, including energy recovery: metric tonne	1,551	0	0	0	0	88	301	289	3	292		306-2
Canada			0	0	0	12	0	0	0	0		
France			0	0	0	0	0	0	0	0		
Netherlands			0	0	0	0	0	137	0	137		
Australia			0	0	0	0	0			0		
United States			0	0	0	0	0	0	0	0		
Germany						76	301	152	3	155		
Central and Eastern Europe - Hungary and Croatia							0	0	0	0		
Ireland							0			0		
Incineration: metric tonne	Not tracked	Not tracked	6,276	3,396	6,662	970	1,374	2,122	46	2,168		306-2
Canada			0	0	3,771	0	0	0	0	0		
France			3,000	1,303	139	507	1,042	1,244	16	1,260		
Netherlands			3,276	2,094	1,580	463	23	573	0	573		
Australia			0	0	1,172	0	0	0	0	0		
United States			0	0	0	0	0	0	0	0		
Germany						0	301	152	3	155		
Central and Eastern Europe - Hungary and Croatia							0	0	0	0		
Ireland							8	153	27	180		
Deep well injection: metric tonne	46,026	3,649	74,323	49,506	21,329	28,691	51,514	7,272	77,670	84,942		306-2
Canada			74,323	31,223	7,479	11,136	15,365	1,683	41,262	42,945		
France			0	0	0	0	0	0	0	0		
Netherlands			0	0	0	0	8,462	5,589		5,589		
Australia			0	0	0	0	0	0	0	0		
United States			0	18,284	13,850	17,554	27,687	0	36,408	36,408		
Germany						0	0	0	0	0	2017 and 2018 data restated to 0 based on drilling company data	
Central and Eastern Europe - Hungary and Croatia							0	0	0	0		
Ireland							0	0	0	0		
Landfill: metric tonne	27,721	33,015	34,908	20,137	10,284	25,291	41,397	365	34,082	34,447		306-2
Canada			34,860	13,511	6,457	23,242	35,979	222	29,175	29,397		
France			0	4,573	2,179	1,741	3,151	0	2,527	2,527		

MATERIAL TOPIC - WASTE	2012	2013	2014	2015	2016	2017	2018	2019			CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	13,043,142	14,966,825	18,094,145	20,046,530	23,250,150	24,827,665	31,853,185		36,630,232			
Annual Production - Annual Report minus non-operated volumes (CDP): boe	13,043,142	14,966,825	18,094,145	19,084,755	19,236,960	21,273,660	28,712,829		36,604,811		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 - Actual flows through operated batteries: boe			17,533,452	18,893,978	18,328,179	19,102,132	29,440,819		44,708,966		Use for intensity calculations to ensure numerator/denominator alignment	
Netherlands			0	1,715	1,259	0	0	56	0	56		
Australia			48	338	389	295	499	87	383	470		
United States			0	0	0	14	891	0	17	17		
Germany						0	0	0	1,980	1,980		
Central and Eastern Europe - Hungary and Croatia							877	0	0	0		
Ireland							0	0	0	0		
On-site storage: metric tonne	0	0	0	90	0	0	0	334	1,405	1,739		306-2
Canada			0	90	0	0	0	0	0	0		
France			0	0	0	0	0	0	0	0		
Netherlands			0	0	0	0	0	334	0	334		
Australia			0	0	0	0	0	0	0	0		
United States			0	0	0	0	0	0	1,192	1,192		
Germany						0	0	0	213	213		
Central and Eastern Europe - Hungary and Croatia							0	0	0	0		
Ireland							0	0	0	0		
Other – Oilfield Waste Processing: metric tonne	11,855	70,150	4,679	6,081	4,091	15,807	6,637	6,105	188	6,293		306-2
Canada			3,451	5,304	3,905	15,569	4,783	6,105	188	6,293		
France			280	454	156	238	6	0	0	0		
Netherlands			0	5	30	0	0	0	0	0		
Australia			0	0	0	0	0	0	0	0		
United States			948	318	0	0	0	0	0	0		
Germany						0	0	0	0	0		
Central and Eastern Europe - Hungary and Croatia							0	0	0	0		
Ireland							1,848	0	0	0		
Weight of hazardous waste shipped internationally: metric tonne	0	0	0	0	0	69	90	206		206		306-4
Canada	0	0	0	0	0	0	0	0		0		
France	0	0	0	0	0	0	0	0		0		
Netherlands	0	0	0	0	0	69	69	0		0		
Australia	0	0	0	0	0	0	0	0		0		
United States			0	0	0	0	0	0		0		
Germany						0	0	0		0		
Central and Eastern Europe - Hungary and Croatia							0	0		0		
Ireland							20	206		206		
DRILL MUD AND CUTTINGS	2012	2013	2014	2015	2016	2017	2018		2019			OG 7
Drill mud & cuttings produced using <u>non-aqueous</u> drilling fluid, onshore disposal to controlled sites: tonne	Limited data	18,844	23,823	9,358	4,950	7,906	14,970		14,710			
Canada				8,351	3,746	6,800	14,212		9,311			
France				0	778	238	758		854			
Netherlands				689	426	868	0		885			
Australia				0	0	0	0		0			
United States				318	0	0	0		0			
Germany						0	0		0			
Central and Eastern Europe - Hungary and Croatia							0		3,660			
Ireland							0		0			
Non-Aqueous drilling fluid re-used at another location (i.e. recovered and transported invert): m3	New in 2015	New in 2015	New in 2015	2,192	824	736	2,182		0			
Canada				2,192	611	0	2,182		0			
France				0	0	0	0		0			
Netherlands				0	213	736	0		0			
Australia				0	0	0	0		0			
United States				0	0	0	0		0			
Germany						0	0		0			
Central and Eastern Europe - Hungary and Croatia							0		0			
Ireland							0		0			

MATERIAL TOPIC - WASTE	2012	2013	2014	2015	2016	2017	2018	2019		CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	13,043,142	14,966,825	18,094,145	20,046,530	23,250,150	24,827,665	31,853,185		36,630,232		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	13,043,142	14,966,825	18,094,145	19,084,755	19,236,960	21,273,660	28,712,829		36,604,811	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 - Actual flows through operated batteries: boe			17,533,452	18,893,978	18,328,179	19,102,132	29,440,819		44,708,966	Use for intensity calculations to ensure numerator/denominator alignment	
Drill mud & cuttings produced using <u>aqueous</u> drilling fluid, onshore disposal to controlled sites: tonne	Limited data	Limited data	7,563	4,337	6,182	9,164	9,754		12,391		
Canada				2,562	2,509	3,302	4,837		5,689		
France				0	2,200	1,741	3,148		2,527		
Netherlands				1,775	875	1,787	0		250		
Australia				0	0	0	0		0		
United States				0	598	2,334	891		0		
Germany						0	0		3925		
Central and Eastern Europe - Hungary and Croatia							877		0		
Ireland							0.0		0		
Drill mud & cuttings produced using <u>aqueous</u> drilling fluid, disposal at Vermilion controlled location: tonne	New in 2015	New in 2015	New in 2015	444	1,760	0	8,620		16,110		
Canada				444	1,760	0	6,648		14,918		
France				0	0	0	0		0		
Netherlands				0	0	0	0		0		
Australia				0	0	0	1,972		0		
United States				0	0	0	0		1192		
Germany						0	0		0		
Central and Eastern Europe - Hungary and Croatia							0		0		
Ireland							0		0		

MATERIAL TOPIC: ENVIRONMENTAL INVESTMENT & SUPPLY CHAIN	2012	2013	2014	2015	2016	2017	2018	2019	CONTEXT	GRI/SASB
Annual Production - Annual Report figure, financial control: boe	13,043,142	14,966,825	18,094,145	20,046,530	23,250,150	24,827,665	31,853,185	36,630,232		
Annual Production - Annual Report minus non-operated volumes (CDP): boe	13,043,142	14,966,825	18,094,145	19,084,755	19,236,960	21,273,660	28,712,829	36,604,811	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 - Actual flows through operated batteries: boe			17,533,452	18,893,978	18,328,179	19,102,132	29,440,819	44,708,966	Use for intensity calculations to ensure numerator/denominator alignment	
INVESTMENT IN ENVIRONMENTAL PROTECTION	2012	2013	2014	2015	2016	2017	2018	2019		
Total environmental protection investment: \$CAD	\$39,954,133	\$37,441,842	\$36,956,969	\$25,714,010	\$25,949,339	\$26,884,165	\$36,333,057	\$44,986,175		
Canada	\$6,528,629	\$6,377,661	\$6,099,464	\$6,008,486	\$8,451,587	\$8,772,085	\$10,989,851	\$14,820,946		
France	\$10,786,743	\$13,385,250	\$10,907,708	\$4,555,225	\$4,513,376	\$9,152,582	\$9,954,566	\$10,722,472		
Netherlands	\$8,126,837	\$4,997,494	\$2,815,841	\$3,914,342	\$10,470,866	\$5,190,457	\$7,683,371	\$11,432,724		
Australia	\$811,924	\$981,437	\$1,177,894	\$614,884	\$1,026,713	\$798,640	\$787,939	\$1,512,341		
United States			\$0	\$516,060	\$1,486,796	\$2,134,901	\$2,469,513	\$1,050,959		
Germany						\$835,500	\$850,680	\$1,013,264		
Central and Eastern Europe - Hungary and Croatia							\$66,879	\$0		
Ireland							\$3,530,258	\$4,433,469		
Waste disposal, emissions treatment, remediation	\$3,438,407	\$6,069,660	\$15,805,157	\$10,043,909	\$11,093,488	\$7,141,269	\$17,138,106	\$24,943,941		
Canada	\$899,825	\$1,817,792	\$3,456,493	\$2,467,810	\$1,076,807	\$1,251,000	\$4,087,067	\$9,504,433		
France	\$1,568,838	\$3,575,837	\$10,258,340	\$3,625,814	\$2,140,827	\$2,882,023	\$3,311,501	\$5,560,217		
Netherlands	\$879,998	\$577,981	\$1,510,210	\$3,772,342	\$6,680,206	\$1,085,892	\$3,594,031	\$4,975,903		
Australia	\$89,746	\$98,050	\$580,114	\$177,942	\$186,311	\$317,802	\$380,624	\$392,383		
United States			\$0	\$0	\$1,009,337	\$1,593,295	\$2,094,305	\$192,859		
Germany						\$11,257	\$73,440	\$284,843		
Central and Eastern Europe - Hungary and Croatia							\$66,879	\$0		
Ireland							\$3,530,258	\$4,033,303		
Prevention and environmental management costs	\$36,515,726	\$31,372,182	\$21,151,812	\$5,565,089	\$8,565,239	\$9,716,048	\$3,318,812	\$4,297,014		
Canada	\$5,628,804	\$4,559,869	\$2,642,971	\$3,540,676	\$5,141,019	\$4,152,344	4349.075	5445.912		
France	\$9,217,906	\$9,809,414	\$649,368	\$929,411	\$352,033	\$561,958	620.228	2025.306		
Netherlands	\$7,246,839	\$4,419,513	\$1,305,630	\$142,000	\$1,861,129	\$3,768,126	\$2,236,031	\$1,689,806		
Australia	\$722,178	\$883,387	\$597,780	\$436,942	\$840,402	\$480,838	\$407,315	\$1,119,958		
United States			\$0	\$516,060	\$370,656	\$448,299	\$375,207	\$858,100		
Germany						\$304,483	\$295,290	\$221,513		
Central and Eastern Europe - Hungary and Croatia							\$0	\$0		
Ireland							\$0	\$400,166		
Discharge of Abandonment	\$13,700,000	\$11,700,000	\$15,956,061	\$10,105,012	\$6,290,612	\$10,026,848	\$15,876,138	\$15,745,220		
Canada					\$2,233,761	\$3,368,741	\$6,898,435	\$5,311,067		
France					\$2,020,516	\$5,708,600	\$6,642,445	\$5,160,230		
Netherlands					\$1,929,531	\$336,439	\$1,853,309	\$4,767,015		
Australia					\$0	\$0	\$0	\$0		
United States					\$106,803	\$93,308	\$0	\$0		
Germany						\$519,760	\$481,950	\$506,907		
Central and Eastern Europe - Hungary and Croatia							\$0	\$0		
Ireland							\$0	\$0		
Fines for environmental non-compliance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		307-1
SUPPLY CHAIN	2012	2013	2014	2015	2016	2017	2018	2019		
% of new vendors screened (pre-qualified using health, safety and environmental criteria)								100	All new suppliers are required to be HSE pre-qualified as part of gaining access to Vermillion sites	SAM

[illegible]

[illegible]

GRI MATERIALITY ANALYSIS – SUSTAINABILITY REPORT APPENDIX

Aspect	Boundary Assessment		Impact on Vermilion	Impact or Concern for Key Stakeholders						
BU=business unit	Relevance or impact inside Vermilion	Primary impact or relevance outside Vermilion, through our value chain		Shareholders & potential investors, including rating agencies	Staff	Partners & Suppliers	Communities	Government and Regulators	Other (Media, Industry associations, NGOs)	Average of Stakeholder Impact or Concern
Employment	All BUs	Exploration Production	High	Medium	High	High	High	High	High	High
Labor/Mgmt Relations	All BUs	Exploration Production	Medium	Low	High	Low	Low	Medium	High	Medium
Occupational Health and Safety	All BUs	All stages	High	High	High	High	High	High	High	High
Training and Education	All BUs	All stages	High	Medium	High	Medium	Low	Medium	High	High
Diversity and Equal Opportunity	All BUs	Exploration Production	Medium (increasing)	Medium	High	Medium	Medium	High	High	Medium
Equal Remuneration for Women and Men	All BUs	Exploration Production	Medium	Medium	High	Medium	Medium	High	High	Medium
Supplier Assessment for Labour Practices	All BUs	Supply	High	Medium	Medium	High	High	High	High	High
Grievances	All BUs	All stages	High	Medium	High	High	High	High	High	High
HUMAN RIGHTS										
Investment	All BUs	Exploration	Medium	Low	Low	Medium	Medium	High	High	Medium
Non-discrimination	All BUs	All stages	High	Medium	High	High	High	High	High	High
Freedom of Association and Collective Bargaining	All BUs	All stages	Low	Low	High	High	Low	High	Medium	Medium
Child Labour	All BUs	Exploration	Low	High	Low	High	Low	High	High	Medium
Forced or Compulsory Labour	All BUs	Exploration	Low	High	Low	Medium	Low	High	High	Medium

Aspect	Boundary Assessment		Impact on Vermilion	Impact or Concern for Key Stakeholders						
BU=business unit	Relevance or impact inside Vermilion	Primary impact or relevance outside Vermilion, through our value chain		Shareholders & potential investors, including rating agencies	Staff	Partners & Suppliers	Communities	Government and Regulators	Other (Media, Industry associations, NGOs)	Average of Stakeholder Impact or Concern
Security Practices	All BUs	Exploration	Low	Low	Low	High	High	High	High	Medium
Indigenous Rights	CBU, USBU	All stages	Medium (increasing)	Medium	Medium	Medium	Medium	High	High	Medium
Operations HR Assessments	All BUs	Exploration	Medium (increasing)	Medium	Medium	Medium	Medium	High	High	High
Supplier HR Assessments	All BUs	Supply	Medium (increasing)	Medium	Low	Medium	Medium	High	High	Medium
Human Rights Grievance Mechanisms	All BUs	All stages	Medium	Medium	Medium	Medium	Medium	High	High	Medium
SOCIETY										
Local communities	All BUs	All stages	High	Medium	High	Medium	High	High	High	High
Anti-corruption	All BUs	All stages	High	High	High	High	High	High	High	High
Public Policy	All BUs	All stages	High	Medium	Low	Low	Medium	High	High	Medium
Anti-competitive behaviour	All BUs	All stages	High	Medium	Medium	High	Medium	High	Medium	Medium
Compliance	All BUs	All stages	High	High	Medium	High	High	High	High	High
Supplier Assessment for Impacts on Society	All BUs	Supply	Medium	Medium	Low	Medium	High	Medium	High	Medium
Grievance Mechanisms for Impacts on Society	All BUs	All stages	High	Medium	Low	Low	High	High	High	Medium
Emergency Preparedness	All BUs	All stages	High	High	High	High	High	High	High	High
Involuntary Resettlement	n/a	n/a	Low	Low	Low	Low	Low	Low	Low	Low

GRI MATERIALITY ANALYSIS – SUSTAINABILITY REPORT APPENDIX

Aspect	Boundary Assessment		Impact on Vermilion	Impact or Concern for Key Stakeholders						
BU=business unit	Relevance or impact inside Vermilion	Primary impact or relevance outside Vermilion, through our value chain		Shareholders & potential investors, including rating agencies	Staff	Partners & Suppliers	Communities	Government and Regulators	Other (Media, Industry associations, NGOs)	Average of Stakeholder Impact or Concern
Asset Integrity & Process Safety	All BUs	All stages	High	High	High	High	High	High	High	High
Governance	All BUs	All stages	High	High	High	High	High	High	High	High
Ethics	All BUs	All stages	High	High	High	High	High	High	High	High
PRODUCT RESPONSIBILITY										
Customer Health & Safety	Corporate	Product Use	Medium	Medium	Medium	Medium	High	High	High	High
Product & Service Labelling	Corporate	Product Use	Medium	Medium	High	High	High	High	High	High
Marketing Communications	Corporate	Distribution	Low	Low	Low	Low	Medium	Low	Medium	Low
Customer Privacy	Corporate	Distribution	Medium	Medium	Low	Medium	Low	Medium	Medium	Medium
Compliance	Corporate	All stages	High	Medium	Medium	Medium	High	High	High	Medium
Fossil Fuel Substitutes	Corporate	All stages	Medium	Medium	Medium	Medium	Medium	High	High	Medium

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