



VALUES MATTER | 2019 SUSTAINABILITY REPORT
Excellence. Trust. Respect. Responsibility.



THE GLOBAL GOALS
For Sustainable Development



Table of Contents

- 1. Message from our Chief Executive Officer
- 2. Economic & Operational Highlights
- 3. Our Approach to Business
- 4. Sourcing Our Energy
- 5. Updates
- 6. Sustainability Vision
- 7. Sustainability Policy
- 8. Company Performance – Awards and Ratings
- 9. External Associations and Initiatives
- 10. About Our Report
- 11. Our Value Chain
- 12. Stakeholder Engagement
- 13. Identifying Issues
- 14. Material Issues
- 15. Validation & Review
- 16. Abbreviations & Terms
- 17. Governance Dashboard
- 18. Our Approach to Governance
- 19. Ethics & Anti-Corruption
- 20. Sustainability Governance
- 21. Risk Management
- 22. Climate-Related Risks & Opportunities
- 23. People Dashboard
- 24. Our Approach to People
- 25. Our Approach to Human Rights
- 26. Performance Management, Training and Development
- 27. A Great Place to Work
- 28. Feature: Energy Apprenticeships
- 29. Feature: OECD: Inclusive Growth
- 30. HSE Dashboard
- 31. Our HSE Approach and Management

- 32. HSE Measurement and Evaluation
- 33. HSE Training and Communication
- 34. Safety Dashboard
- 35. Our Approach to Safety
- 36. HSE Perception Survey
- 37. Feature: Safety in The Netherlands
- 38. Feature: Safety Case Revision in Australia
- 39. Feature: Wandoo Life Extension
- 40. Environment Dashboard
- 41. Our Approach to Environmental Stewardship
- 42. Measurement & Evaluation
- 43. Approach to Climate-Related Issues
- 44. CDP Case Study
- 45. Approach to Methane Emissions Reduction
- 46. Feature: Energy and Emissions Reduction Projects
- 47. Feature: Renewable Energy Projects in France
- 48. Feature: Renewable Energy Projects in The Netherlands
- 49. Water Stewardship
- 50. Water Efficiency
- 51. Land Stewardship
- 52. Communities Dashboard
- 53. Our Approach to Communities
- 54. Volunteering Around the World
- 55. Key Community Partnerships
- 56. Appendices
 - GRI Content Index
 - Performance Metrics
 - Materiality Analysis

Message from our Chief Executive Officer



Anthony Marino
President and CEO

As we progress through the energy transition, the foundation of sustainable development still rings true: ensuring we can meet the needs of both present and future generations.

At Vermilion, our leadership in sustainability is about doing the right thing for the planet and for the business. These are not mutually exclusive concepts – in fact, it is just the opposite. We believe that by integrating sustainability principles into our business, we increase shareholder returns, enhance our business development opportunities and reduce long-term risks to our business model.

Sustainability performance speaks volumes about a company to investors, demonstrating the way it comprehensively does business, encompassing economic, environment, social and governance factors. High sustainability performance means that a company is on top of its game, producing its products as efficiently as possible, and continuously striving for improved results. Even more importantly, a company that is looking after its external impacts is a company that is ethically centered.

Our approach to the energy transition reflects this convergence of sustainability and business strategy. As the world works to reduce reliance on hydrocarbon-based fuels, we will be better off with energy production – traditional and renewable – in the hands of best-in-class producers who operate with environmental and social responsibility, and with the needs of both current and future generations in mind.

Our track record of reducing emissions while optimizing production, and our groundbreaking use of geothermal energy, sets Vermilion apart as an industry leader. We see sustainability performance as *the* critical competitive advantage for our industry, defined as:

Environmentally protective. Socially conscious. Economically inclusive.

We are conscious of our purpose and our responsibility to provide safe, affordable and reliable energy for our stakeholders. We are achieving this by increasing our operating efficiency and reducing our environmental impact: producing lower carbon fuels such as natural gas, and deploying energy and emissions efficiency improvements throughout our operations. Between 2014 and 2017, this strategy reduced absolute emissions while increasing energy production, reducing our emissions intensity by 45% – equivalent to taking 38,000 passenger vehicles off the road.

This achievement resulted in large part from our integration of the Elkhorn assets we acquired in southeast Saskatchewan in 2014, in which we set an absolute target to reduce associated scope 1 emissions by 50% by 2020. We have already exceeded this target, reducing emissions by 84%. This improvement in our initial set of southeast Saskatchewan assets has been part of the overall emissions intensity reduction we have executed for each of the past three years.

In 2018, we acquired another set of assets in southeast Saskatchewan by merging with Spartan Energy, which increased our Canadian production by approximately 60% between 2017 and 2018. The emissions intensity of the new assets was approximately 3½ times the pre-acquisition intensity of Vermilion's other Canadian assets. We didn't shy away from the Spartan assets because of their higher intensity. We knew that these high margin assets would be in production for many decades whether we acquired them or not. We took on the mantle of improving their emissions efficiency, knowing that our expertise and commitment would yield both environmental and economic improvements. These traditional energy assets needed to be in best-in-class hands to minimize their profile of carbon and other emissions.

We strongly believe these assets will perform better on an environmental and economic basis under our guidance, and we have already begun this work. We set a target in 2018 to reduce the flaring and venting emissions associated with the Spartan assets by 50% by 2024. Our operational improvements have already reduced these emissions by 11,000 tCO₂e: that's 6% progress towards our target in the first seven months of operation.

This role for Vermilion as an aggregator and improver of assets is very important, particularly in light of guidance from the Sustainability Accounting Standards Board to consider not just data – for example, absolute emissions along with normalized metrics such as emissions intensity – but context. When we take over assets that were previously in production with less efficient and less emissions-conscious companies, our approach will result in those assets having fewer emissions, less flaring and better spill performance. We seek to make immediate improvements, as we have already with the Spartan assets, and continuously progress from there, such that the cumulative enhancement to the environment is very significant.

While we focus on environmental protection, prioritizing emissions reduction in the drive to the Paris Agreement's "well-below-2°" scenario, we must also focus on the strength of our communities. We operate in countries with very well-developed regulatory regimes on safety, human rights, labour practices and the environment. In the majority of our business units, we also sell our oil and gas within the country of production. This reduces emissions associated with transportation, increases national energy security, and provides those countries with energy that is produced with a world-class approach to environmental and social responsibility.

This includes our longstanding commitment to the economic and social wellbeing of the communities where we operate. Just as the United Nations Sustainable Development Goals are inextricably linked, with contributions to one goal contributing to several others in turn, our strategic community investment program always keeps in mind our ultimate goal of leaving no-one behind.

Our approach to community development is to work with our communities to identify where our technical innovation, financial resources and employee time can be of most benefit in advancing environmental and social improvement, and advancing economic inclusivity.

Our geothermal projects in France are a good example. With two projects in production and one in development, our operations are providing heat to industrial-scaled agriculture that supports hundreds of local jobs, and to housing projects that provide low-income housing. We believe that these geothermal projects provide a leadership example to our industry competitors in redeploying strategic energy infrastructure in service of the energy transition.

This reflects our belief that a community that is good for business needs to help create opportunity for every person in it. This is why some of our most recent investments support at-risk LGBT+ youth: Camp fYyrefly offers a summer camp program in Alberta and Saskatchewan that is a source of acceptance and understanding, while the Boys & Girls Clubs' Aura program in Calgary helps youth who are homeless transition into safe housing. We call on other independent energy companies to follow Vermilion's lead and to support the LGBT+ community.

We understand that the wellbeing of our environment, our communities and our business are inextricably intertwined. As long as we still need oil and gas to support present generations' increasing quality of life, we need the contribution of our overall energy needs that comes from these two traditional sources to be produced by best-in-class companies like Vermilion, that care about the environment and the people in our communities. At Vermilion, we are working with other energy companies, our communities and our various levels of government to deploy our strategic energy assets to serve and advance the energy transition.

I urge you to join us in this vital work. We will progress much farther and faster together, in a spirit of collaboration toward a future that delivers wellbeing for all.



Anthony Marino

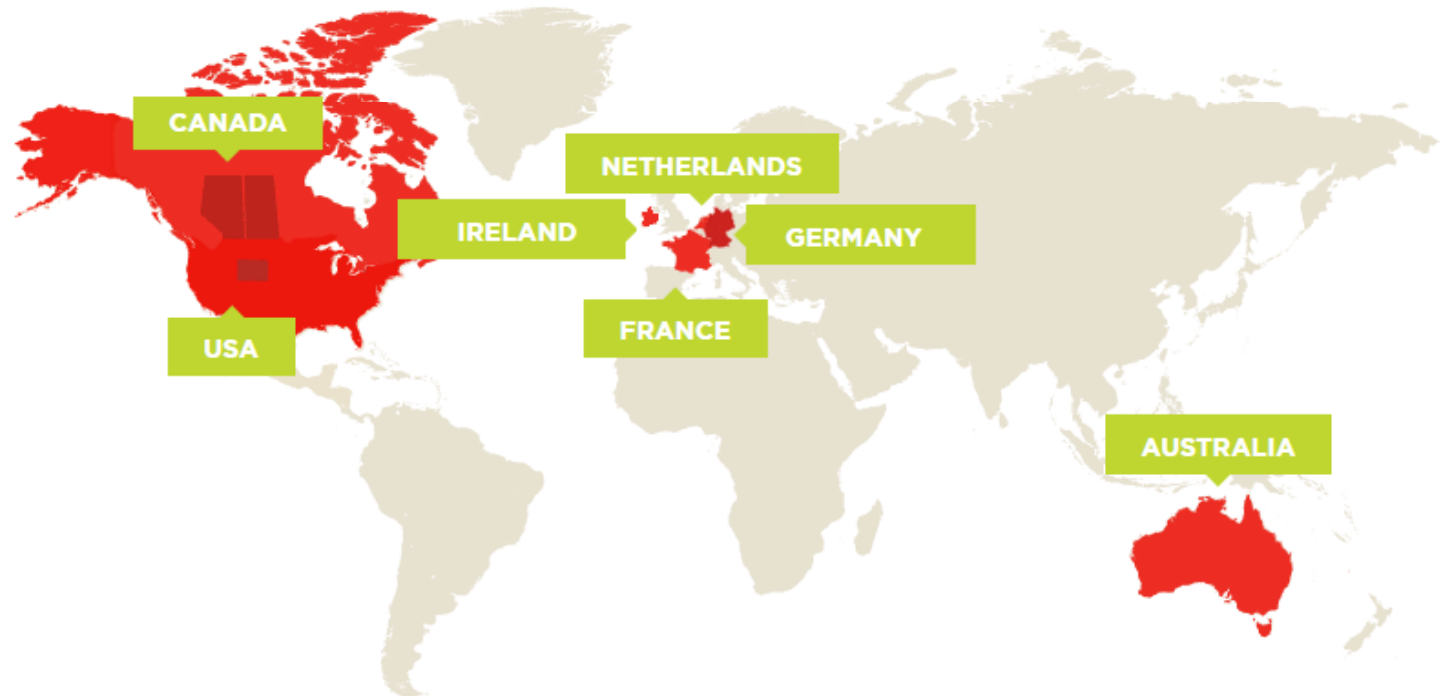
Economic & Operational Highlights

In 2018, Vermilion: 102-7, 201-1

- › Produced almost **32 million boe** of oil and gas
- › Generated net revenue of approximately **\$1.5 billion**
- › Paid close to **\$175 million** in wages and benefits to our employees
- › Distributed more than **\$388 million** in dividends to our shareholders
- › Paid close to **\$198 million** in taxes and royalties in our operating jurisdictions
- › Invested more than **\$2.1 million** in community support
- › Devoted more than **\$44 million** to protecting our environment

8.1 Sustain per capita economic growth

We continued to responsibly increase production (22% between 2017 and 2018) using a stable, long-term growth model, while supporting our stakeholders: investors, staff, governments, communities and suppliers.



Canada

Production	48,630 boe/d
Staff	499
Net Revenue	\$586.4 MM
Reserves	284,476 Mboe

The Netherlands

Production	7,779 boe/d
Staff	96
Net Revenue	\$162.7 MM
Reserves	22,196 Mboe

France

Production	11,396 boe/d
Staff	166
Net Revenue	\$313.8 MM
Reserves	63,918 Mboe

Australia

Production	4,342 boe/d
Staff	82
Net Revenue	\$150.74 MM
Reserves	14,480 Mboe

United States

Production	1,992 boe/d
Staff	27
Net Revenue	\$28.3 MM
Reserves	56,214 Mboe

Germany

Production	3,614 boe/d
Staff	44
Net Revenue	\$75.8 MM
Reserves	25,735 Mboe

Ireland

Production	9,195 boe/d
Staff	98
Net Revenue	\$205.1 MM
Reserves	20,575 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 outstanding financial and operational performance for 25 years.

At the core of our business is our purpose: we believe that producing energy for the many people and businesses 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 2016 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, France, The Netherlands 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

Our business model focuses on annual organic production growth, along with providing a reliable, increasing dividend, and generating strong returns from accretive acquisitions. In 2019, we are targeting production of

101,000 to 106,000 boe/d (approximately 19% growth over 2018), 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 and Central and Eastern Europe, consisting of 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 receives premium 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 businesses
- 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 2018) located throughout our operations, and through an extensive supply chain.

In 2018, our supply chain represented more than 9,000 entities and an investment from Vermilion of more than \$902 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 for 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.

Based on independent economic assessments, we have derived better returns for shareholders as a result of developing this expertise in semi-conventional reservoirs as opposed to shales. 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 Clastic Reservoirs

Clastic rock is a type of sedimentary rock in which oil and gas deposits are often found. These deposits can

range from conventional reservoirs (often sandstones) that allow sufficient porosity and permeability for hydrocarbons to migrate within them, to unconventional reservoirs 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 clastic 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

In 2018 we have strengthened our core regions, through acquisitions that align with our sustainable growth-and-income model by targeting low risk assets with high netbacks, strong free cash flow generation, low base decline rates and strong capital efficiencies on future development. This adheres to our long-term strategy of balanced and diversified growth:¹⁰²⁻¹⁰

- In November 2018, Vermilion and the Canada Pension Plan Investment Board (CPPIB) completed a strategic partnership in Corrib, whereby CPPIB acquired Shell Exploration Company B.V.'s 45% interest in Corrib for total cash consideration of €830 million. Vermilion assumed operatorship of Corrib and now holds a 20% working interest.
- In May 2018, Vermilion completed a \$1.4 billion acquisition of Spartan Energy Corp., a publicly traded southeast Saskatchewan oil producer. The transaction significantly increases our presence in the desirable operating jurisdiction of southeast Saskatchewan, while increasing our exposure to high netback light oil in a highly advantaged product marketing setting.
- In January 2018, we acquired a private southeast Saskatchewan producer, with assets comprised of high netback, low base decline, light oil producing fields in the Sinclair and Fertile areas, straddling the Saskatchewan/Manitoba border.

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. ^{G4-2}

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 ^{G4-14} introduced in 1992 by the United Nations "Rio Declaration on Environment and Development" ^{G4-15} 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. Vermilion was one of only five oil and gas companies in the world to be named to the Climate "A" List.

In both 2018 and 2017, Vermilion was recognized with a Leadership Level rating of A-. We were the top-rated Canadian oil and gas sector company, and placed within the top 2% of North American and top 5% of global oil and gas sector companies.



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.



Vermilion's MSCI ESG rating improved from A to AA in July 2019, and our Governance Metrics score continued to rank in the top decile globally.



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.



In 2019, 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 also certified by the Institute in France and The Netherlands.



We have been recognized annually for excellence in governance practices as part of the Globe and Mail annual **Board Games** survey since 2006. In 2018, Vermilion governance practices resulted in a rank of 4th among oil and gas companies in Canada.



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 received ISS decile QualityScores of "1" for Environment and "2" for 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 "2" 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.



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.

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 2018 and 2018. 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 continued as an active supporting member in 2018 and 2019.
RobecoSAM 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 and 2018. RobecoSAM 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.
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.

<p>Petroleum Association of Wyoming (PAW)</p>	<p>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.</p>
<p>Saskatchewan Petroleum Industry Government Environmental Committee</p>	<p>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.</p>
<p>UFIP (Union française des industries pétrolières)</p>	<p>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.</p>
<p>Western Energy Alliance</p>	<p>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.</p>

About Our Report

Our 2019 Sustainability Report is Vermilion's sixth 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 regularly through the year. We expect to augment this 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, RobecoSAM, the EU Directive on Non-Financial Disclosures and the Task Force on Climate-Related Disclosure. We plan to include the Sustainability Accounting Standards Board alignment in 2019.

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
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 	<ul style="list-style-type: none"> > Communities > Partners > Customers/end users > Investors 	<ul style="list-style-type: none"> > Customers/end users > Investors > Government > NGOs

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.¹⁰²⁻⁴³

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

<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 		<p>and potential partnerships</p> <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
--	--	--

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 RobecoSAM ➤ 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, RobecoSAM (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

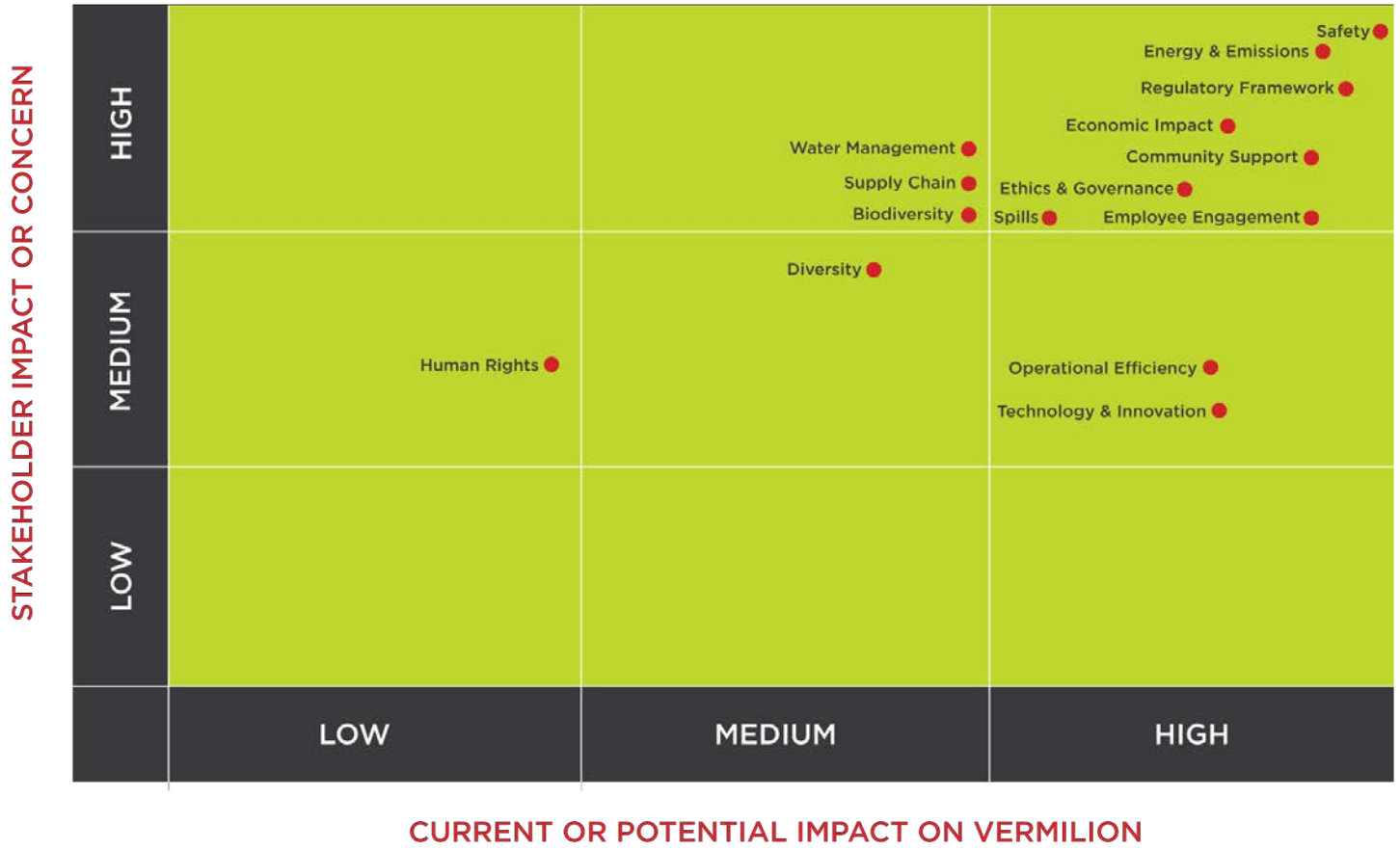
For each issue, we have reevaluated whether they were of high, medium or low impact on Vermilion, and high, medium or low impact from the perspective of our key stakeholder groups. As a result, we have adjusted our materiality matrix, reflecting an increased importance of regulatory frameworks and community 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 and a CSR-P designation (Corporate Social Responsibility-Practitioner, certified by The Center for Sustainability and Excellence). 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
mbls	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
USBU	United States Business Unit

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

2017 Target	2018 Target	2019 Target
Conduct annual "say on pay" advisory votes at AGM 102-37 Received 97% shareholder approval	Conduct annual "say on pay" advisory votes at AGM Received 86% shareholder approval	Conduct annual "say on pay" advisory votes at AGM Received 94% shareholder approval
Develop procedures for contractors to confirm annually awareness of and compliance with our Code of Business Conduct 100% achieved	Establish Board of Directors Sustainability Committee 100% achieved	Develop Sustainability Committee Terms of Reference and associated procedures 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>
--	---	---

Key Updates

Sustainability Committee: The Board established our Sustainability Committee in 2018 to assist it 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 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 2018, the Board, Board Chair and/or Sustainability Committee Chair:

- Reviewed Vermilion’s long-range strategic plan for sustainability.
- Reviewed Vermilion’s sustainability performance via results from third-party sustainability ratings agencies, including CDP, RobecoSAM, Sustainalytics, MSCI, ISS, Corporate Knights and Vigeo-Eiris.
- Reviewed key sustainability governance, reporting and performance recommendations from the TCFD and the Canadian Coalition for Good Governance, and incorporated them into the Board and the committee’s responsibilities.
- Reviewed the Board skills matrix to ensure appropriate representation of sustainability-related skills and experience, including climate-related issues.
- Established the Sustainability Committee and its membership.
- Drafted the committee’s Terms of Reference for review by the GHR Committee.
- Recommended guest speakers with sustainability expertise, including climate change, for 2019 Board continuing education

Board Composition: Vermilion’s Board of Directors is currently comprised of 10 directors and 1 corporate secretary. Eight Directors (80%) are considered independent, and two (20%) are female. Mr. Anthony Marino and Mr. Lorenzo Donadeo are non-independent directors.¹⁰²⁻²²

Board Tenure: In the last four years, we have appointed six new directors who bring valuable skills and experience to our company.

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 2018 CEO-to-worker ratio of 41-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](#).

Diversity: 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

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 and [Information Circular](#).

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. ^{G4-41} 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 a skills matrix 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 matrix is reviewed regularly by the Board to ensure an appropriate mix of backgrounds, skills and experience to guide Vermilion's long-term strategy and ongoing business operations, and currently includes:

- CEO / Senior Officer experience
- Managing / Leading Growth
- Oil and Gas Operations
- Reserve Evaluation
- Global / 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 / Regulatory

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
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”) outlines a framework of guiding principles for directors, officers, employees and contractors globally, and supports 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 Code of Conduct is 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 their employment 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 and CEO, and our Executive Vice President People and Culture, hold responsibility for these policies, while our entire executive team 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.

Anti-Corruption Policy: Vermilion's Code of Business Conduct includes a Vermilion Anti-Corruption Policy.

Vermilion's operating context significantly mitigates corruption risks for our company: regions noted for their stable, well-developed fiscal and regulatory policies related to oil and gas exploration and development. However, we recognize the importance of guarding against corruption in all forms, and have included it not only in our Code of Business Conduct, but also in our wider business context. The policy clearly defines possible issues, warning signs and red flags, and the due diligence and record keeping that is required. Our Chief Financial Officer is also our Chief Compliance Officer and administers our anti-corruption policy.

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.

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 lobbying organizations.

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, 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 President and CEO, and throughout the company via our Executive team, 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 team 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, RobecoSAM and Sustainalytics. We chose CDP, RobecoSAM and Sustainalytics as the agencies to focus on given 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 team 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 business units that include Canada, France, The Netherlands, Ireland, Germany, Central & Eastern Europe and Australia.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, 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.

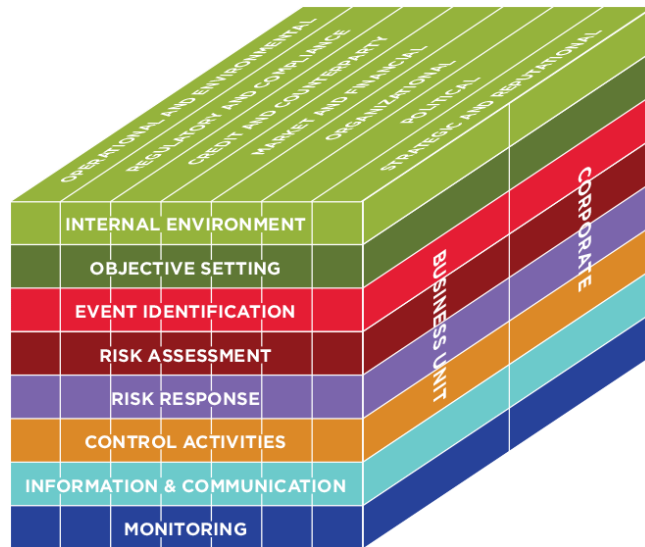
How We Manage Risk

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](#) (pages 57-63), 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. This includes our Health, Safety and Environment team, Sustainability team, technical teams and Marketing (Economics) team.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 team, 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 delivering modest annual growth in production and cash flow while also providing reliable and growing dividends to our shareholders. 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 team. 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 team, through implementation of associated policies and procedures that the Board approves.¹⁰²⁻³¹

Risk identification occurs in several ways. 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. In the past year, this has included Board briefings and strategy discussions on topics such as Disruptive Technologies (e.g. Electric Vehicle Impact), Energy Storage, Renewable Energy, and Regulatory Changes in Oil and Gas Producing Regions.

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 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, 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 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 HSE Committee, 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.

In 2017 and 2018, to support climate risk identification and management, we 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 developing carbon liability risk cases for all business units in 2019, supports ongoing identification of carbon opportunities, and supports activities such as business development, taxation review and Marginal Abatement Cost Curve preparation.

In 2019, we will further integrate 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.

Climate-Related Risks & Opportunities

We have aligned this discussion with the recommendations from the Task Force on Climate-Related Financial Disclosures.

Governance

Board and Management Oversight: Vermilion has reported publicly on climate risks and opportunities via our [CDP submissions](#) since 2014, with data back to 2012. These risks and opportunities are identified by key staff across our company, including our Health, Safety and Environment (HSE) team, Sustainability team, Government and Public Relations teams, Business Unit Managing Directors, and our Economist. All of these employees are experts 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, landowners, and the work of global bodies such as the United Nations, including the Paris Agreement, and the Organization for Economic Development.

Climate-related responsibility sits directly with the HSE team and the Sustainability team. These teams provide quarterly reports to the Executive team and the full Board of Directors. On our Executive team, our Chief Operating Officer is responsible for climate-related operations performance, such as emissions and HSE performance, and our Executive Vice President, People and Culture, is responsible for overall Sustainability performance.

In addition, the Chief Operating Officer, Director of Corporate HSE and Manager of Corporate HSE brief the Board's HSE committee, which meets three times per year. The Terms of Reference for the HSE Committee specifically include Review and Monitoring of Health, Safety, and Environment related Sustainability Initiatives. The executive and senior management have the ability to take various initiatives, research/results and other information to this group to validate operational/policy change or organizational direction adjustment.

The Board, as our highest governing body, has responsibility for reviewing all risks, including climate-related, and their implications for our business strategy and how we implement it, both in the short and longer term.

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).

Risk Management

Risks associated with climate change and environmental impact have been identified, with potential impacts quantified for each Business Unit, using our Enterprise Risk Management process. We report on those publicly through our annual CDP submission. This process is used to assess implications, identify mitigating measures and build a portfolio of business opportunities.

Vermilion's BU and asset risks are aggregated into the Corporate Risk Register. Risk is assessed through a grid matrix based on the anticipated impact severity and subsequent probability of an event occurring in consideration of the impact to people, the environment, financial results and social license to operate. Stakeholders considered in risk assessment

include, but are not limited to, internal (Executive, Board of Directors, employees, contract staff), and external parties (landowners, NGOs, investors, the general public, regulators, governments, industry groups).

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 \$20USD 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.

Metrics and Targets

We have reported on key climate-related metrics annually since 2012 (see [Performance Metrics](#)), including:

- Scope 1 and 2 energy consumption and greenhouse gas emissions
- Renewable Energy expenses and emission reduction
- Scope 3 emissions (since 2014, with increasing data coverage annually)
- Flaring and venting
- Water withdrawal (with zero withdrawal in high baseline water stress areas)

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




(additional details provided in our [Environment](#) section):

- - - - -

Location	target	progress	details
Southeast Saskatchewan asset purchase in April 2014	Reduce flaring by 50% by 2020	204% achieved	In 2015 and 2016, through the construction of new infrastructure, operational changes and increased infrastructure runtimes, we have reduced emissions in our Southeast Saskatchewan assets by 75% since our acquisition.
The Netherlands	Vermilion set a target corporately to identify areas within our operation we could leverage green energy as a means to replace traditionally generated electricity. This grew from implementing solar and TEG powered lease sites across the Canada Business Unit to initiating ongoing and planned reviews of purchased power across our operations	100% achieved	On January 1, 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 that Business Unit from 2015 to 2016. This represents an estimated 39,145 tCO ₂ e avoided based on 2015 emission intensity levels for purchased energy and 2016 energy consumption.
Global	Top quartile emissions intensity (lowest emission rate on a per BOE basis) when compared against our peer group	100% achieved	Vermilion's emissions reduction initiatives and activities have resulted top quartile performance when compared against our peer group.

Given our successful meeting of targets to date, we are assessing global, science-based target setting, and will continue this work into 2018.

People Dashboard

SDG	Target	Vermilion's Contribution
 <p>3 GOOD HEALTH AND WELL-BEING</p>	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.
 <p>5 GENDER EQUALITY</p>	5.4 Recognize and value unpaid care and domestic work and shared responsibility	Family-friendly work options, including a strong parental leave program, vacation purchase program, flexible working hours, and the ability to work part-time with benefits.
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	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	2018
100% of permanent employees participating in an annual performance review and development plan	95% 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, 2018, our global team comprised 1,023 people:

- › 68% permanent employees
- › 51% of our workforce is located in North America, 41% in Europe and 8% 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 2018

- › 227 new hires, including the contract conversions, resulting mainly from our Spartan and Corrib acquisitions
- › 139 internal moves: 31 lateral, 74 promotions and 34 contract conversions
- › 13,023 hours of training and development
- › Voluntary turnover rate of 6%, including retirement, and total turnover of 8.3%: our consistently low turnover rates reflect our belief that by nurturing and protecting our culture, we attract and retain the best of the best. 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).

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 10 (20%) Directors on our Board are female and one out of four (25%) of our senior management team is female. In 2018, 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.

Vermilion Energy does not tolerate human rights violations in our operations or in our supply chain. To be clear, human rights violations such as forced labour and other forms of modern slavery, and child labour, have no place in our business.

Ensuring human rights violations do not occur in our own operations, and working to prevent them in our supply chain, is part of our commitment to being a responsible energy producer.

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.”

In 2018, we began 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, 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. ^{G4-LA11} To support this, we provide informal and formal training and development opportunities that fulfill both company and employee needs. ^{G4-LA10}

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, 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).

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 80%.



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 handful of unabridged comments from staff on what makes our company a great place to work:

Vermilion's commitment to people - it is a refreshing take on how a company takes care of its people, and where that in turn encourages employees to want to take care of the company that takes care of them so well. It is a nice feeling, especially for such a large organization! Big Company with a Small Company/Family feel.

Vermilion's founders are driven by integrity, opportunities who bring a wealth of experience working well with and leading people. Vermilion managers and executives are in tune with the environment we are in and they have beneficial contingencies to choose from. They global focus is exciting and the balance of properties around the world is viewed well by investors.

This is a great place to work due to the way upper management and field personnel are able to relate and communicate with each other. It gives it that small company family feel. Also the culture that Vermilion exhibits in the way of HSE and also in community and family values is second to none which is one of the reasons this is a great place to work.



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.

2017 Update: Two new Process Operator Trainees began their first swing on Wandoo in October 2017 as part of the Energy Apprenticeship Group partnership. The trainees have spent the last 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



Feature: OECD: Inclusive Growth

Vermilion was honored to participate in the launch of **the OECD's Roundtable on Inclusive Growth and Business**, which brought together leading experts on sustainability and business, and provided important recognition of our work in this area.

The Inclusive Growth Roundtable, held at OECD headquarters in Paris on Nov. 15, 2016, was an initial conversation on inclusive growth and how the business community is addressing it. Participants included the General Secretary of OECD, the State Secretary of Labor and Education for Slovenia, the Chairman of the White House Council of Economic Advisers, as well as Ambassadors and Ministers from OECD member and partner countries, and selected business leaders, including Danone and Vermilion Energy.

[More information](#)

How does Vermilion define inclusive growth?

For Vermilion, inclusive growth means making sure that everyone has an opportunity for economic advancement, regardless of their economic status, gender, religion or disability. We look at this as long-term capacity development, focusing on productive employment for our employees, contractors and local suppliers.

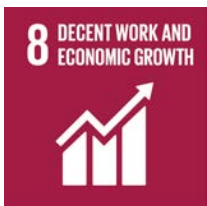
We also undertake environmentally sustainable development, having examples of these projects in several countries. And, we stress strategic community investment in the locations in which we operate, identifying critical community needs where our financial contributions and our employees' volunteer time can make a difference.



Inclusiveness is focused on equality of opportunity and capacity-building for our local labor force, our business partners that supply us, and our local communities. Here are a few examples:

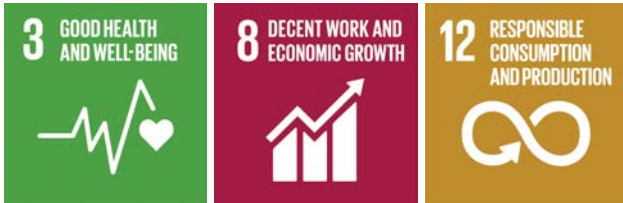
- In Parentis, France, we began a project in 2008 to take unused heat energy from the produced water in our oilfield operation, and use it to supply heat to a new tomato greenhouse industry. We are heating this greenhouse free-of-charge and free of carbon emissions for 25 years, which has made the greenhouse operation profitable to build and operate, and certifiable as an eco-greenhouse. This original investment has catalyzed a large tomato industry in Parentis, which now represents 27 hectares, 350 long-term jobs, €37 million invested in economic diversification, and 15 million kilos of tomatoes each year. It also saves 15,000 tonnes of CO₂ emissions per year, and is the largest tomato production in France from non-fossil fuel sources. It received the Minister of Ecology's "Circular Economy" award in 2013, and is an excellent example of the oil and gas industry:
 - Creating new jobs in a new industry;
 - Making both industries (oil and agriculture) more sustainable; and
 - Reducing greenhouse gas emissions while increasing economic development.
- Another example is our "Eco-neighborhood" being built in La-Teste, France. This is a 30-year partnership with the city and a local developer to use our recycled geothermal energy to heat 450 apartments. This saves 50% of the heating bill for the residents, and a third of the apartments are reserved for low-income social housing. It also saves 650 tonnes per year of CO₂.
- We also support programs and contribute volunteer time to an Early Childhood Development Centre in a rural oil-producing area in Canada that had no such programs before.
- In The Netherlands, our flagship program focuses on a non-profit called JINC, a national program to assist underprivileged children between 8-16 to stay in school and develop their careers. JINC's motto is "Every child deserves an equal chance to find a job."
- In France, our flagship program is with Chantier Ecole, supporting reintegration into the labour market through participation in local environmental and heritage work projects.

Projects such as these are demonstrating that green growth, sustainable growth and inclusive growth go hand-in-hand. They have lowered carbon emissions, developed co-industries that can last for long periods of time, and led to substantial increases in employment, often in less-developed small-town and rural areas.



HSE Dashboard

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



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



In 2018 and 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 2018, we met all of our corporate leading HSE Key Performance Indicators (KPIs) and our individual business units met 99% of our leading HSE KPIs. Our 2018-2019 HSE accomplishments are an indicator of our progress towards realizing our HSE vision. These include:

KEY HSE PILLAR	2018-2019 ACCOMPLISHMENTS
<p>HSE Culture</p>	<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 2018 ➤ Provided first-time Vermilion HSE leadership training in 2018 to operators in Ireland, to front-line supervisors in Germany, and in local languages to operators in Netherlands and Germany
<p>Communications & Knowledge Management</p>	<ul style="list-style-type: none"> ➤ Ongoing development and implementation of Operator Competency Program (OCP) in Canada and France ➤ Developed site-specific operating guidelines in Dutch in The Netherlands
<p>Technical Safety Management</p>	<ul style="list-style-type: none"> ➤ Ongoing status review and update of HSE Management System structure and content ➤ Completed update of the Operational Risk Management framework and risk matrix
<p>Incident Prevention</p>	<ul style="list-style-type: none"> ➤ Implemented “High 5” Individual Responsibility Awareness Initiative globally ➤ Established automation of project hazard identification and control in Australia
<p>Operational Stewardship & Sustainability</p>	<ul style="list-style-type: none"> ➤ Achieved CDP Climate Leader “A” List in 2016 and “A-“ rating in 2017 and 2018; we are the only Canadian Energy Sector company, and one of only two in North America, to achieve a Leadership Level score in 2018 (Top 5%) ➤ Implemented carbon liability analysis to enhance emission management processes ➤ Obtained Corrib safety case approval

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 and senior management teams. Management responsibility for HSE rests with all of our Executives and operationally with our Executive Vice President and Chief Operating Officer, with strategy and performance led by our Director, Corporate HSE and the Corporate HSE team. 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 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

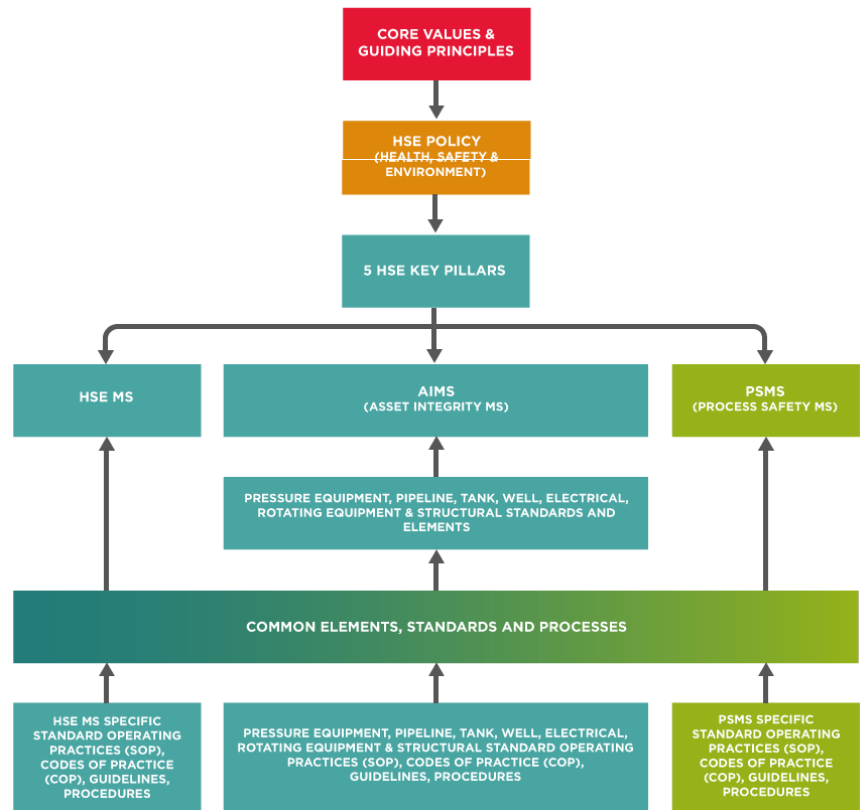
HSE MS provides the structure for the delivery of our HSE policy and commitments, including areas of corporate ownership and responsibility, with the objective to increase consistency across the organization in its development and implementation. By following the HSE MS's action steps of Plan, Do, Check & 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 President and CEO, COO, EVPs and other key senior leaders 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, RobecoSAM 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


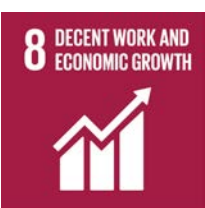

Additional HSE training takes many forms throughout our organization, and includes external certifications along with internal training courses and seminars with such focuses as HSE leadership training, hazard awareness and management, functional process hazard and risk analysis, incident investigation, 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
 <p>3 GOOD HEALTH AND WELL-BEING</p>	<p>3.6 Halve the number of global deaths and injuries from road traffic accidents</p>	<p>Vermilion has identified transportation, including driving, as one of our top fatal risks, and included it in our risk management priorities.</p>
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	<p>8.8 Protect labour rights and promote safe and secure working environments for all workers</p>	<p>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.</p>
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p>12.2 Achieve the sustainable management and efficient use of natural resources</p>	<p>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.</p>

Commitments and Progress

2018	2019	2020
Implement Personal Safety Awareness Initiative globally 100% achieved	Develop and implement project for upgrade of event management information system	Implement event management information system
Further development of our comprehensive Process Safety Management System through detailed Process Hazards Analyses Continued development of tools extends into 2020 Extended to 2020	Complete Corporate Risk Management Standard	Develop Corporate Risk Management Standard training and rollout
Ongoing development and implementation of OCP in Canada and France; review and update in The Netherlands; ongoing review and updates to Australian online training 100% achieved, with additional work ongoing in 2019	Ongoing implementation of competency system in France; further updates to Australian online training	
Further develop training program and train new leaders 100% achieved	Update Corporate Contractor/Vendor Selection and Management Guidelines	
Obtain safety case approval for Corrib operation and integrate Ireland operations in Vermilion HSE plan 100% achieved		

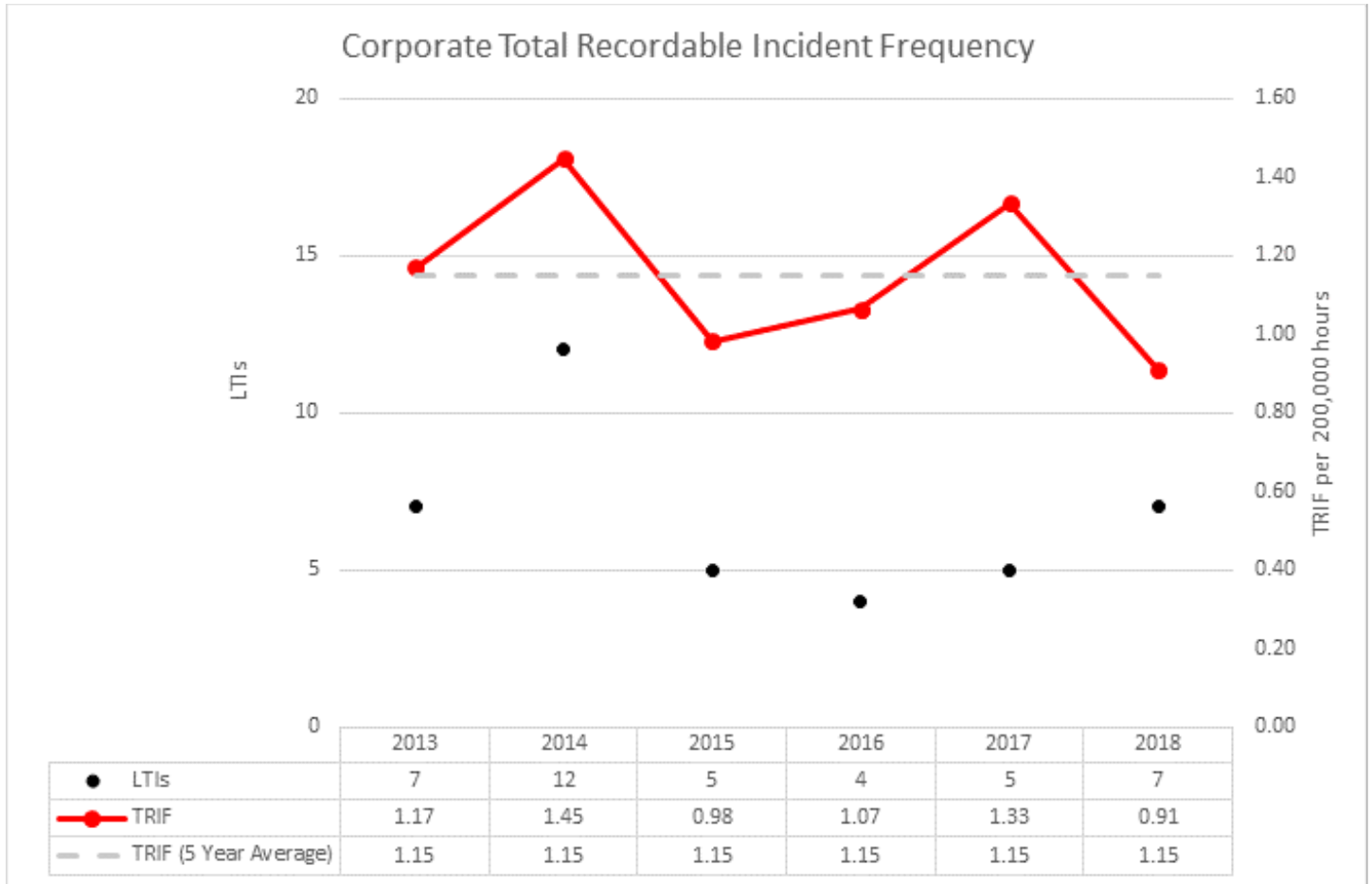
SAFETY Performance Measurement

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) and Lost Time Incidents (LTIs)



TRIF and LTI are shown from 2011 to 2018. 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

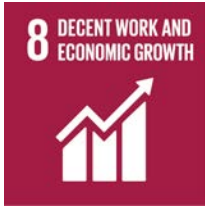
As part of our robust emergency response plans, we have communications plans in place throughout our global locations, including outreach to our communities and nearby landowners. For example, our Corrib operation in Ireland includes online community emergency response information for both the [Corrib 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.

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 in 2018 called Vermilion High 5. This tool provides a simple checklist to confirm if it is safe to proceed with a task, or if we need to stop and regroup. 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 timeframe required to clearly understand the outcomes, and effectively plan and implement the actions required to respond to or address the findings.

All surveys received a staff response rate of over 90%, creating a solid baseline measure of staff perceptions of how they feel safety is being managed at Vermilion.

We are currently collating responses for the 2019 survey. 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 are continuing to advance these efforts in 2019.



Feature: Safety in The Netherlands

We assess and customize safety requirements according to the unique character of each of our business units. In The Netherlands, for example, we carefully monitor both earthquake and subsidence risks.

Earthquake Risk Assessments

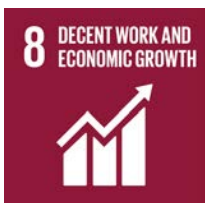
No production-related seismic activity has ever been recorded on the fields that we operate in The Netherlands, some of which have been in production for over forty years. Nevertheless, we incorporate into our development and production plans the latest independent scientific research and modeling with respect to the probability and potential magnitude of seismicity occurring in relation to our operations. We are cooperating with all levels of government, research institutes and local communities to improve the industry's understanding and communication on this complex topic.

Subsidence Risk Assessments

As part of the production plan approval process, we conduct extensive baseline subsidence measurement surveys and construct detailed subsidence models to estimate the total lifetime subsidence as a result of gas production activities. Once production has commenced, we conduct regular subsidence measurements to ensure gas extraction-related subsidence stays within our modeled expectations. In the event that actual measured subsidence exceeds predictions in a given gas pool, we will conduct more detailed studies and measurement work to determine the appropriate production approach for the remainder of the gas pool life.

While we endeavor to reduce or eliminate impacts to the communities we operate in, if we have caused damages we will ensure they are compensated and corrected. In 2014, Vermilion contributed 3.6 million Euros to a compensation fund related to the Harlingen Upper Cretaceous field in the Province of Friesland. We voluntarily shut in this field in 2008, after we had taken over operatorship in 2004, due to higher than expected levels of subsidence. This field has remained shut in since that time.

Additional information about [licensing and permitting in The Netherlands](#) can be found on our Netherlands website.



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. Four inspections were conducted in 2017, with no enforcement action required.



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
 <p>6 CLEAN WATER AND SANITATION</p>	<p>6.1 Ensure the availability and sustainable management of water for all</p>	<p>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)</p>
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p>7.2 Increase the share of renewable energy in the global mix 7.3 Reduce energy consumption</p>	<p>Vermilion is developing expertise in geothermal energy projects while also focusing on reducing energy consumption through infrastructure renewal in all of our business units.</p>
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p>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</p>	<p>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).</p>
 <p>13 CLIMATE ACTION</p>	<p>13.1 Combat climate change</p>	<p>We are proactively identifying risks and opportunities, reporting on emissions and other key data, setting internal carbon prices, and working on target setting.</p>
 <p>14 LIFE BELOW WATER</p>	<p>14.1 Conserve and sustainably use the oceans for sustainable development 14.2 Sustainably manage marine and coastal ecosystems</p>	<p>We comply with or exceed regulations regarding wastewater and marine environment management, proactively improving western Australia's capacity for oiled wildlife recovery.</p>
 <p>15 LIFE ON LAND</p>	<p>SDG 15.1 Protect, restore and promote sustainable use of terrestrial ecosystems 15.5 Take urgent action to reduce or halt biodiversity loss</p>	<p>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</p>

2018-2019 Updates

Strong CDP Results

Vermilion's performance in the annual CDP scoring, which consistently places us far above 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, CDP released a [case study](#) focusing on Vermilion's leadership approach to the energy transition
- In 2018, Vermilion was recognized with a Leadership Level rating of A-. We are the top-rated Canadian oil and gas sector company, and are in the top 2% of oil and gas sector companies in North America and 5% 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 to participate in the energy transition.

Our track record is clear. 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 many associated projects that have contributed to a significant reduction in our emissions and achievement of the target before the target 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. Similar to the 2014 acquisition, an emission reduction target and related operational initiatives have been established and we look forward to sharing these success stories in the coming years.

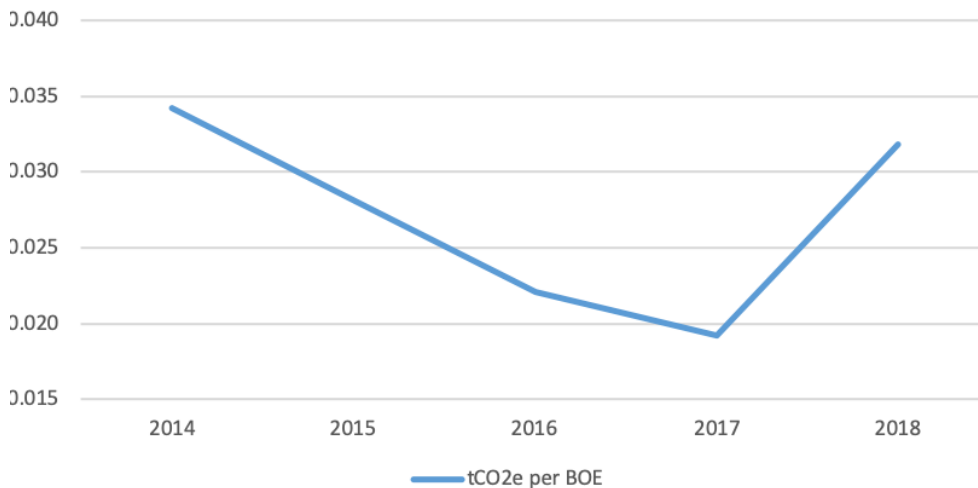
The year-over-year increase in emission intensity shown below is dominantly related to the 2018 acquisition of Spartan Energy Corp. On a unit production basis, the emission intensity of the Spartan assets (0.067 tCO₂e/BOE) was approximately 3.5 times the pre-acquisition intensity of Vermilion's other Canadian assets (0.019 tCO₂/BOE in 2017).

Operational improvements undertaken in 2018 subsequent to the Spartan acquisition have resulted in a 10,871 tCO₂e reduction in flaring and venting emissions, and remain ongoing as part of new targets we have set for these assets.

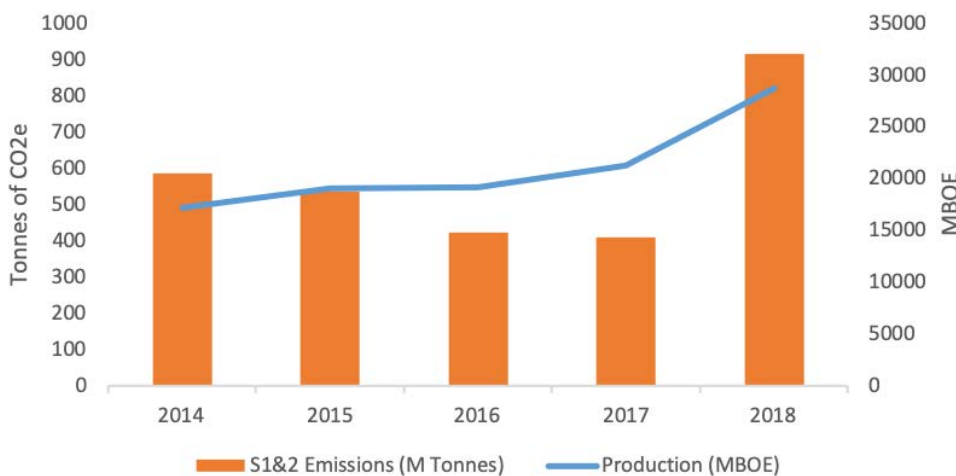
As operational improvements continue, the emission intensities associated with the acquired assets will continue to decline and ultimately align with Vermilion's historical production metrics and performance trends.

This emissions intensity effect is reflected in the charts below, showing the year-over-year decrease between 2014 and 2017, with an increase in 2018. As emphasized in the Sustainability Accounting Standards Board guidelines, when considering data such as this, context is key: our takeover of the Spartan assets in 2018 will result in those assets having fewer emissions, less flaring and better environmental release (spill) performance over the next several years than would otherwise have been the case. When Vermilion's production grows, the environmental profile of that production improves. We have done it before, and we are committed to doing it again.

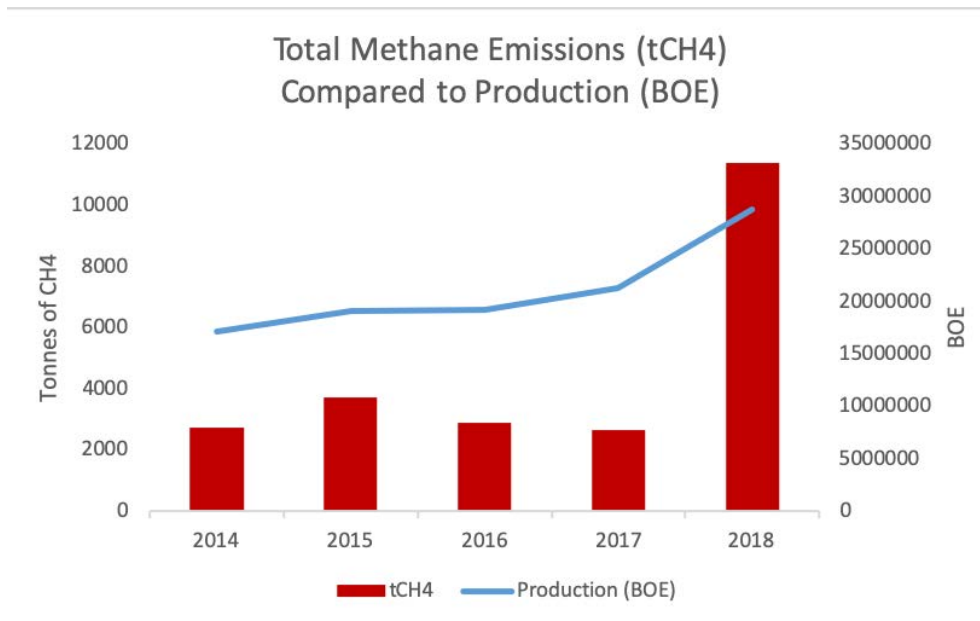
Emissions Intensity Per BOE
Scope 1&2 tCO₂e Per BOE



Total Scope 1&2 Emissions (tCO₂e)
Compared to Operated BU Production (BOE)



*Operated business unit production within our GHG reporting scope



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
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: Achieved 84% reduction in annual emissions (see energy and emissions reduction page).
Scope 1 - methane	Set in 2014: Methane reduction target including in the target above to reduce flaring emissions at our light-oil assets in southeast Saskatchewan acquired in 2014 by 50% by 2020	Achieved: This is the methane reduction apportionate target associated with our program to reduce emissions in our Saskatchewan asset by 50% by 2020. This represents 8,379.0 tCO ₂ e in methane (Baseline of 16,757.95). Our target is comprised of multiple projects with a wide impact to a variety of emission sources.
Scope 1 – flaring and venting	Set in 2014: Reduce flaring emissions at one of our major facilities in France by 65% by 2015	On Target: Achieved 65% reduction in emissions (avoiding the flaring of 14,500 tCO ₂ e annually) by implementing a gas export system

<p>Scope 2 - renewable energy</p>	<p>Set in 2015: Exceed 5% of our total power consumption coming from renewable sources (and replacing traditionally generated electricity) by 2017</p>	<p>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 beginning on January 1, 2016, from our largest power provider in our Netherlands Business Unit. This represents an estimated 39,145 tCO₂e avoided annually based on 2015 emission intensity levels for purchased energy and annual energy consumption.</p>
<p>Renewable Heat Energy Target</p>	<p>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</p>	<p>Above Target: 2018 production was 70,080 MWh of geothermal energy</p>
<p>Renewable Heat Energy Target</p>	<p>Set in 2016: Begin generating renewable geothermal energy annually in France from our La Teste ecohousing site in 2017</p>	<p>Achieved: ecohousing geothermal heat technology installed, 450 housing units in place, with another 100 in development</p>
<p>Emissions Intensity</p>	<p>Set in 2016: Top quartile emissions intensity (lowest emission rate on a per BOE basis) when compared against our peer group annually</p>	<p>On Target: Vermilion's emissions reduction initiatives and activities have resulted in top quartile performance in our peer group.</p>
<p>Scope 1 – flaring and venting</p>	<p>Set in 2018: reduce the flaring and venting emissions, including methane, associated with the Spartan assets acquired in 2018 by 50% by 2024</p>	<p>Progressing: Infrastructure changes and performance optimization activities undertaken in 2018 subsequent to the acquisition have resulted in a 10,872 tCO₂e reduction in flaring and venting emissions. This represents a 5.8% progress towards our 2024 target (10,872 tCO₂e / 187,258 tCO₂e = 5.8%). On an annualized basis, emission reduction activities undertaken to date in relation to the Spartan assets have resulted in a 74,200 tCO₂e per year reduction in flaring and venting emissions.</p>
<p>Scope 1 – methane</p>	<p>Set in 2018: Similar to our 2014 acquisition of Elkhorn, this is an apportionate target associated with our program to reduce methane emissions for our 2018 acquisition of Spartan by 50% by 2024.</p>	<p>Progressing: 10.7% achieved. This is the methane reduction target is associated with our emissions reduction target related to the 2018 acquisition of Spartan Energy Corp. Similar to our prior Elkhorn emission target, this target is comprised of multiple projects with a wide impact to a variety of emission sources. Infrastructure changes and performance optimization undertaken in 2018 subsequent to the acquisition have resulted in a 8,753 tCO₂e reduction in methane emissions. This represents a 10.7% progress towards our 2024 target (8,753 tCO₂e / 81,591 tCO₂e = 10.7%).</p>

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.

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 Leadership](#) section.)

We are deeply embedded in the low-carbon transition, guided by global initiatives that include The Paris Agreement and the United Nations Global Goals for Sustainable Development. We are actively engaged in this critical work, with a focus on supporting a stable and managed energy supply that meets the energy 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.

Our annual CDP submission and, starting in 2018, our Annual Report, include detailed descriptions of climate-specific risks, timeframes, likelihood of occurring, impact on the business & our resulting 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 2oC 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 2o world, the requirement for responsible, reliable energy to fuel the energy transition will support organizations like Vermilion through a competitive advantage. The results of our analysis are guiding our organization to explore options for expanded renewable energy generation. This type of business strategy adjustment will support Vermilion to continue to develop lower-carbon energy resources that have the ability to feed local markets. The results of all scenario analysis at Vermilion are reported to senior management and the Board of Directors. Currently the results of scenario analysis are held within the organization.

- **Increasing low carbon products:** Between 2012 and 2018, we moved from a 67% weighting of oil compared to natural gas and natural gas liquids to 44%. We recognize that our 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 2,480 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.
- **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 and ISS QualityScore.

Anticipating changes in regulatory requirements:

- Update to Directive 039 in Alberta. This regulatory change led Vermilion to complete engineering reviews and facility updates that we estimate to total \$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.
- The 2020 IMO fuel Sulphur regulation will become effective Jan 1 2020, limiting the sulphur content of

bunker fuel to a maximum of 0.5%. At present, the global sulphur content cap on bunker fuel is at 3.5%. This new IMO regulation will not restrict Vermilion’s sales of oil in France or Australia, but will result in higher transportation costs, which could result in an increase of \$1/bbl transportation costs

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 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

CDP Case Study

Case Study: How an oil and gas company survives the low-carbon transition

This Case Study from CDP focuses on Vermilion's experience and approach, and is available from [the CDP website here](#). CDP, formerly the Carbon Disclosure Project, runs the global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts. They have built the most comprehensive collection of self-reported environmental data in the world.

CDP Case Study:

The Paris Agreement is clear. We must limit the global temperature rise to well below 2C – striving for 1.5C – above pre-industrial levels to avoid the worst impacts of climate change.

For that to happen, global emissions need to peak and then rapidly fall to zero. Failing to do so will lead us into uncharted territory, with far-reaching consequences for our economy and societies around the world. Achieving this goal, however, will bring a multitude of benefits for both people and planet. But what does this transition mean for the oil and gas industry?

We spoke to Anthony Marino, President and CEO at international oil and gas producer Vermilion Energy Inc., to find out more about how the company is tackling the energy transition.

The extraction and burning of fossil fuels goes intrinsically against the vision set by the Paris Agreement, with scientists warning that vast swathes of fossil fuels must be left in the ground if we hope to hold the global temperature rise below dangerous levels. This means that the oil and gas industry must evolve beyond “business as usual” practices.

As Marino acknowledges, **“there has to be an energy transition, and Vermilion will be a part of that energy transition.”**

In 2017, CDP data found that just 100 companies – all energy producers – were linked to some 70% of global

greenhouse gas emissions through their operations and their products. Fighting climate change therefore depends on these producers, and the fossil fuel sector they represent, including the oil and gas industry, to actively contribute to solutions.

To survive in a climate-constrained world, oil and gas producers such as Vermilion will have to embrace the move toward low carbon. But as Marino says, the company is also aware that **“oil and gas consumption is going to continue for some period of time, and therefore oil and gas is going to be produced during the energy transition. Concerned investors, citizens, communities and governments should turn to best-in-class producers during this period.”**

So how does the company reconcile these two realities?

Vermilion’s approach to the transition to sustainability

First, the company is diversifying its portfolio, exploring the renewable energy that is most closely related to its expertise in areas such as geoscience and drilling techniques: geothermal energy.

Headquartered in Alberta, Canada, Vermilion has close to 1,100 staff and operations in North America, Europe and Australia. Many of Vermilion’s locations already use renewable energy, such as solar power, within their operations to improve energy and emissions performance. However, the company has also implemented successful geothermal energy projects to provide heat to agricultural and residential sectors.

Vermilion estimates that its two geothermal projects already in production transferred 61,500 MWh of energy in the form of heat in 2018. In France, for example, tomato producer Tom d’Aqui’s 15 hectares of greenhouses use the heat from Vermilion’s operations to create an eco-friendly environment in which to grow some 7,500 tonnes of tomatoes on the vine annually. This project has reduced carbon dioxide emissions by 10,000 tonnes per year, while also supporting 250 local jobs. Vermilion and its partners were recognized by the French Ministry of Ecology, Sustainable Development and Energy with its Circular Economy Award for Industrial and Regional Ecology for this project, which also provided the catalyst for a sustainable and growing industry in a semi-rural region in need of economic investment.

Vermilion is using a similar concept to support an eco-neighborhood in La-Teste, France. The 30-year development uses recycled geothermal energy to provide 80% of the heat for 550 apartments, 30% of which are reserved for social housing. It is estimated the project will save 500 tonnes of CO₂ annually and reduce heating costs by 50% for residents.

A key component of both projects is using oil and gas infrastructure in partnership with communities to produce sustainable, green power locally. It also contributes to the United Nations’ Sustainable Development Goal 7: Affordable and Clean Energy, which Vermilion uses as part of its sustainability strategy.

Marino says the company is also **“assessing and developing projects to apply our experience in accessing geothermal potential in other areas of our business.”**

Two more projects are already in the engineering and planning phases. These include an agreement with the community of Itteville, France to provide geothermal heat to an eco-district focused on social housing, and a pilot project in the Netherlands to convert a depleted gas operation into geothermal heating for a nearby industrial agriculture complex.

Second, Vermilion's goal within its continued oil and gas operations is to be **"best-in-class [...] while the transition to the low carbon economy takes place"**. For this, Marino says CDP's disclosure process has been fundamental.

"Once you measure your performance and identify a set of targets, you create the conditions to achieve them. Then you have to set a higher and higher bar all the time to continue to deliver for your shareholders. You deliver, and then you set more aggressive targets. It's a feedback loop, and CDP has been instrumental in that because it's such a quantitative, objective measure of how we are doing," he says.

In 2014, the company set an absolute target to reduce its scope 1 emissions in a newly acquired asset (representing approximately a third of the new asset's total emissions) by 50% by 2020, based on 2014 levels. Vermilion has already exceeded this target, reducing emissions by 78% by the end of 2017, and reducing full-year emissions from 194,000 tCO₂e to just 42,000 tCO₂e, thanks to the emission reduction activities put in place. Vermilion sees the largest CO₂ reduction potential within its Scope 1 emission portfolio, but has set a target for Scope 2 emissions associated with green energy acquisition, and is in the process of assessing segments of its Scope 3 value chain where targets could be set.

"Our emissions can't help but go up on an absolute basis as we take over operations that have a higher emissions profile than the average that exists in our portfolio," explains Marino. **"Those assets we take over were previously in production with less efficient and less emissions-conscious companies, and once we take them over, we substantially reduce emissions."** Though absolute emissions have grown as the company has expanded its market share over the years, Vermilion's emissions reduction activities have contributed to reductions in emission intensity on a production basis.

"We work to implement emission reductions through more efficient machines that reduce the fossil fuels used in the production process, management of fugitive emissions, reduction of spills, and reduction of water use," says Marino. For example, the company has replaced carbon-intensive fuels such as diesel with natural gas, to reduce the carbon intensity of its operations.

As with many companies that operate oil and gas production assets, flaring is also an important issue for Vermilion. While it is required in rare cases, close management is key to limit the volume of CO₂ released. Gas flaring is believed to release nearly 400 Mt of CO₂ globally per year.

Marino explains how the company aims to reduce flaring either by using technology to achieve a more complete combustion or by finding ways to use the gas that would otherwise be flared, to meet a portion of Vermilion's or the general market's needs. For example, he says that by replacing incinerator technology in Parentis-en-Born, France with a technology that operates at higher temperatures and combusts the gas in a taller stack, **"significantly more of the gas is incinerated, reducing the fugitive emissions of methane and other hydrocarbons."**

The business case for climate action

Reducing its emission intensity is vital for the company's aims to reduce its environmental impact and to grow financial returns.

"As you reduce emissions, you are spending less to produce energy," says Marino. He believes sustainability is not only about doing the right thing for the planet; it is also about doing what is best for your business. **"In the long run, inaction can negatively impact businesses in the form of climate change."**

With the global community becoming ever more aware of the threats of climate change, Vermilion understands that its stakeholders and shareholders want to see increasing action.

“Good sustainability performance says a lot about a company to investors, demonstrating the way it comprehensively does its business, looking after all the external impacts it may have on the broader group of stakeholders,” says Marino. **“We’re seeing more and more interest from our shareholders and investors to address these topics.”**

Aligning with a Paris-compliant future

Aligning its emission levels with the goals set by the Paris Agreement is a grand challenge for a company such as Vermilion, but one it intends to achieve through a comprehensive, global emissions management program.

“We’ve been assessing the organization’s ability to set a science-based target – a target in line with the goals set by the Paris Agreement – as part of the pathway toward decarbonization,” says Marino.

The need for this work has never been more evident. Released in October last year, the Intergovernmental Panel on Climate Change’s Special Report on 1.5C gave an unmistakable warning of what is at stake if global warming is not limited to the lowest levels possible. The Global Climate Action Summit in September 2018, meanwhile, was a clear show from the corporate world that it is already leading the low-carbon transition.

As suppliers of products that are the source of significant emissions, oil and gas companies need to secure their long-term prosperity by aligning themselves with a climate-safe future. The Science-Based Targets initiative is currently developing a methodology tailored to the oil and gas sector, which will provide a pathway for companies to assess by how much and how quickly they need to reduce emissions in line with the Paris Agreement. In the meantime, Vermilion is working to ensure the company is positioned to take this ambitious step.

“Vermilion has many projects that are unique to our operations that will support setting targets in alignment with the SBT Initiative,” Marino says. **“Identification of goals and targets is an important component of our corporate sustainability program. Our focus will be to assess the Science-Based Targets Initiative’s decarbonization pathway for oil and gas, to identify how and where we can set meaningful, resilient targets. Our focus is on effective metrics and real improvement.”**

Addressing growing risk with collective action

The impacts of climate change are already felt across the globe. Unparalleled heatwaves, recurrent hurricanes, intense periods of drought, and frequent flooding are no longer an oddity, but part of our new and dangerous reality. As a sector, the oil and gas industry is undeniably vulnerable to this changing climate.

“Having both onshore and offshore operations across the world, we have some exposure to a higher number of potential weather events. This is the reason why we have a robust risk management process in place,” says Marino.

It comes as no surprise, then, that the company has invested in sustainability as a way to stand out within the

industry. Vermilion also believes, however, that the energy transition cannot happen without collective action from oil and gas producers.

“We see our CDP scores and sustainability performance as an important competitive advantage, but we’re happy to share our knowledge with our competitors. We do this because it is the right thing to do and, additionally, because it’s an incentive for us to keep on improving our sustainability performance,” says Marino.

For example, Vermilion is a key participant in an energy industry sustainability working group in Alberta. Launched in 2013, the voluntary group aims to engender collective action towards the low-carbon transition.

“We understand that we’ve all got a role to play in sharing solutions, and when we get a collection of dedicated minds that are all working on this in different companies, it really allows us to find better solutions than perhaps we could find alone,” explains Marino.

Looking to the future

A green economy must be the ultimate goal – with renewables as the main actor. Vermilion already is a major purchaser of green power; in 2018, Vermilion disclosed that about 30% of its total purchased or acquired electricity came from renewable sources. But the company acknowledges that more needs to be done to achieve a full transition.

So what will Vermilion look like 30 years from now? While Marino says the company cannot be definitive in quantitative terms about the next three decades, he is confident the company’s ***“carbon intensiveness will continue to decrease in our existing operations and that a growing number of renewable energy projects will be incorporated into our natural gas operations over time, and that more of the energy used in our production processes will come from renewable sources.”***

One thing is clear: with the stark warning from the IPCC that global emissions need to halve by 2030, and reduce to zero by 2050 for the best chance of holding off the worst impacts of climate change, Vermilion’s work to meet and increase its ambition will be vital not only for the planet but for its own future.

***** In 2018, Vermilion scored an A- on climate change. Vermilion has yet to disclose in our report on water security, but intends to do so over the next year.***

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.

According to a 2016 Environmental Defense Fund report (Improving Methane Disclosure in the Oil and Gas Industry), scientific studies on methane emissions from the natural gas and oil industries suggest that, in order to maximize the climate benefits of a transition from both diesel and coal to natural gas on all time scales, methane emissions from the industry must be limited to an emissions rate of 0.8%.

Vermilion's emissions ratio of CH₄ to natural gas production is significantly lower than the EDF's recommendations, at 0.11% (on a V/V basis). When comparing CH₄ emitted to total hydrocarbon production (within our emissions reporting scope), Vermilion's ratio is 0.060% (compared on a BTU basis). This value is a result of our commitment to methane detection and reduction, and we continue to examine areas where we could further improve.

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 will be mandated federally and provincially by 2020. We believe 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 indicate 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

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 from this operation by 50% by 2020. This resulted in a significant focus on the reduction of flaring and vented solution gas at these sites in 2015 and 2016,

Beginning in 2015 and continuing into 2018, through the construction of new infrastructure, operational changes and increased infrastructure runtimes:

- We have reduced emissions in our SE Saskatchewan assets by 84% (current year emissions 30,296 tCO₂e / Adjusted Base year 193,999.7 = 84% reduction to date)
- This reflects 320% success toward our 2020 target of a 50% reduction over 2014 emission levels (193,999.7 tCO₂e x 50% = 96,999.8 tCO₂e / 2018 Emissions 30,296 = 320%).
- Year over year, Vermilion was able to reduce emissions from our targeted assets by 11,484 tCO₂e between 2007 and 2018.



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 has resulted in an approximately 30% increase to our Alberta and Saskatchewan production in relation to 2017 totals. Consistent with our corporate focus on Health, Safety and Environment, Integrated Sustainability and Operational Excellence, and 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. Similar to Elkhorn, 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 subsequent to the acquisition have resulted in a 10,872 tCO₂e reduction in flaring and venting emissions. This represents a 5.8% progress towards our 2024 target (10,872 tCO₂e / 187,258 tCO₂e = 5.8%). On an annualized basis, emission reduction activities undertaken to date in relation to the Spartan assets have resulted in a 74,200 tCO₂e per year reduction in flaring and venting emissions.

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](#).

Purchase of Green Power in The Netherlands

Starting in January 1, 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

Vermilion is reducing flaring in many of our locations, because it is more efficient to incinerate or use gases such as methane (instead of flaring or venting them). In turn, this allows Vermilion to reduce our greenhouse gas emissions and our potential impact on nearby communities.

Our 2015 replacement of incinerator technology at our battery in Parentis 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:

- 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 reduced power consumption by

approximately 17%, resulting in an estimated 10,000 kWh saving per year per well.

- Our first use of an ORC turbine, in which a turbogenerator works as a steam turbine to transform thermal energy into mechanical energy (France).
- Our non-operating partnership in the Weyburn-Midale Carbon Capture and Storage facility in Saskatchewan, Canada, which is one of the largest carbon capture, utilization and storage projects in the world. Our non-operated production from this enhanced oil recovery project totals approximately 290,668 tonnes CO₂e/year (2,321 bbls/d).



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. Today, 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.

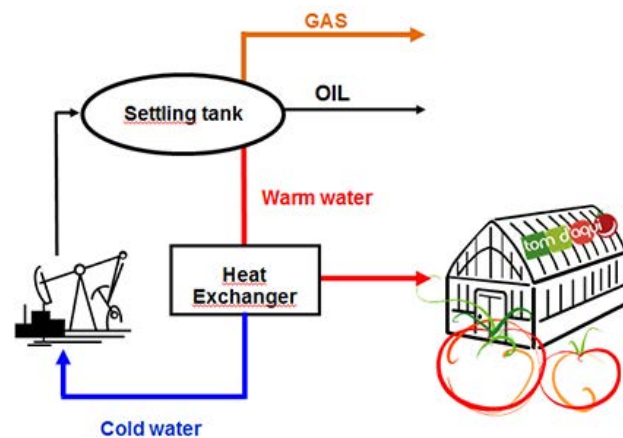
Here's how it grew.

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

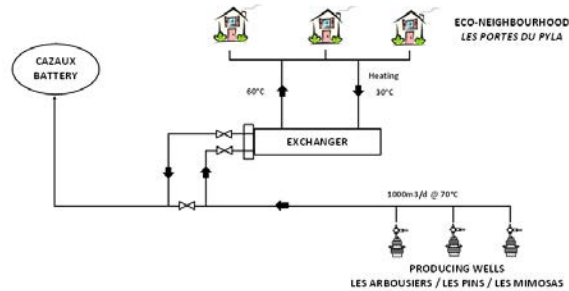
We are using a similar geothermal concept to support an Eco-Neighborhood in La-Teste. This 30-year partnership with the city and the French land developer Pichet is using our recycled geothermal energy to heat 550 apartments, **saving 50% of the heating bill for the residents and 500 tonnes per year 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.



Expanding the geothermal concept to Itteville

In March 2018, Vermilion signed an eco-responsibility agreement with the municipality of Itteville, France, to expand this concept of co-generation to a planned eco-district of 900 apartments dedicated to social housing. We have committed to providing this neighbourhood with geothermal heat from our produced water until 2040. Construction is expected to take four to five years, with residents saving 500 euros per year per home, along with 2 tonnes of CO₂. This agreement confirms a shared desire to create value by enhancing the heritage and resources of the area.



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

We continue to develop our project to convert two of our depleted gas wells in Middenmeer, in North Holland, to geothermal production. This project is expected to supply 200 to 250 cubic metres of water per hour, supporting a nearby regional agriculture hub with approximately 10 to 15 MWh of energy, or up to 30% of their heat demand. The hub – Agriport A7 – is one of the largest contiguous greenhouse areas in Europe, with 320 hectares and 9 tomato- and pepper-producing customers.

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. We are aiming at 2021 for this project.



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. This includes water withdrawal by source, and percentage and volume of water recycled and reused.

Protection of Water Bodies

None of our operations take place in areas that are considered water stressed. However, we 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. We take a location-specific approach, complying with or exceeding water and operating regulations in all of our business units. We also monitor water as a risk factor, understanding that a decreased water supply due to climate change, for example, would impact our operations. The following projects are just a few examples of our water protection work.

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.⁹⁴⁻¹⁰²



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

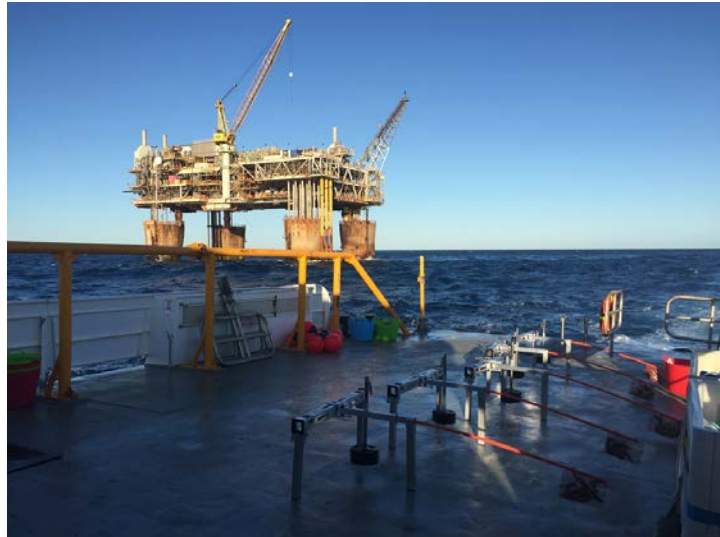
monitoring, offering a gain in intervention efficiency. From an environmental perspective, the engines meet the latest standards and regulations. This reduces fuel consumption and the boat's wake, thus offering greater respect for other lake users such as fishermen and sailors. In addition, we have organized several Days of Caring through our community investment activities that see our staff caring for Lake Parentis, 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 we 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. Four inspections were conducted in 2017, with no enforcement action required.



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.



Water Efficiency

Reducing our Water Use

We are committed to careful stewardship of the planet's resources, including water. We do not currently operate in areas that are considered highly water stressed; however, our capital and operating procedures recognize the critical importance of this resource. 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.

We expect to begin reporting to CDP Water in the near term.

Improving Water Management

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 water³⁰³

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

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

put into place and cemented in permanently to isolate the upper portion of the well while drilling to the final reservoir target.

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



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 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.

We also re-used existing well sites in The Netherlands 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** **marine environment** off Wandoo to **protecting ungulates** **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



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 areas.^{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, 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.

Rigs to Reef Project - Australia

ARO obligations also relate to our offshore production. In Australia, we are partnering with researchers from the University of Western Australia, who are studying the fish and shark communities around our Wandoo oil platform. Over time, these platforms can act as artificial reefs, supporting a variety of marine species, including rare species. This project is comparing Wandoo with control sites to determine the ecological value of the platform in terms of the marine community it supports. Hundreds of hours of underwater video footage have been collected to date, with footage of octopus, sharks (dusky, zebra, tiger and hammerhead), sponges, sea fans, crabs and great barracuda. Regulations currently allow for platform infrastructure to be left in place if evidence supports that it would be more beneficial for the environment; this research project is investigating those benefits to allow for further assessment of the value of rigs to be left in place instead of removed. Vermilion is pleased to support this project with financial and in-kind resources.



Communities Dashboard

SDG	Target	Vermilion's Contribution
	<p>1.2 Reduce at least by half the proportion of people living in poverty</p>	<p>Homelessness and Poverty 2018: 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 10 years. In 2018, \$232,000 was raised supporting four local charities, YWCA Calgary, Inn from the Cold, Boys & Girls Clubs of Calgary and Habitat for Humanity, and impacting the lives of hundreds of families.</p>
	<p>2.1 End hunger and ensure access by all people to safe, nutritious and sufficient food</p>	<p>Homelessness & Poverty Our funding focus on homelessness and poverty encompasses several programs that support ending hunger, including our Days of Caring: Canada 2018: 8,400 hot lunches funded and served at the Drop-In Centre, Canada's largest shelter serving those who are homeless Denver 2018: staff filled hamper orders for the Food Bank of the Rockies The Netherlands 2017: in addition to our funding of 22,000 euros, staff supported the launch of KinderRestos in Leeuwarden, helping children learn about healthy food and lifestyles France 2017: every year, staff in Melun support the Restos du Coeur food drive at a local supermarket, informing customers about the campaign and accepting food donations.</p>
	<p>3.6 Halve global deaths and injuries from road traffic accidents</p>	<p>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 Australia we are proud to support The Royal Flying Doctor Service, helping purchase specialized equipment and supplies to outfit a new aircraft to operate as an intensive care unit in flight.</p>
	<p>15.5 Action to reduce degradation of natural habitat, halt the loss of biodiversity and protect and prevent the extinction of threatened species</p>	<p>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 The Netherlands we are proud to support It Fryske Gea, helping conduct valuable research to better enable nature conservation organizations to make impactful adaptations to support decline bee populations.</p>
	<p>17.17 Encourage and promote effective public, public-private and civil society partnerships</p>	<p>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.</p>

Progress on Commitments

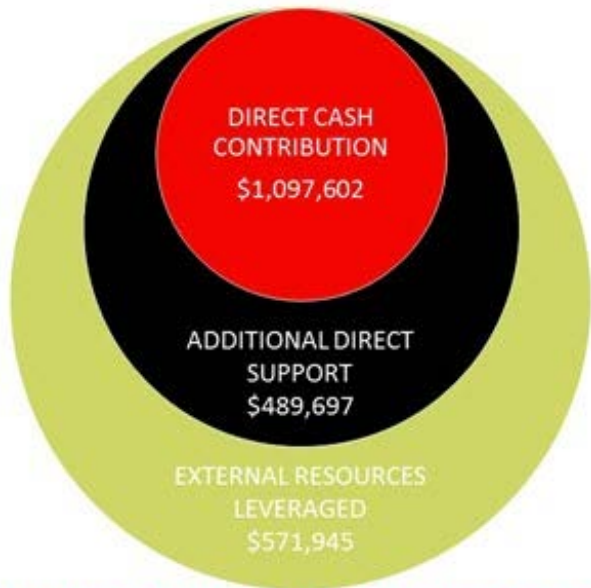
Target 2017	Target 2018	Target 2019
Launch Global Funding Initiative to support non-profit emergency response providers in all business units. 100% Achieved	Develop and launch Ways of Caring program in our Germany Business Unit. 100% Achieved	Develop and launch Global Funding Initiative to support environmental stewardship in all business units. 100% Achieved

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 2018
\$2,159,244

Give Time

- 106 grants
- 15,595 staff hours volunteered during non-working hours
- \$76,137 in grants

Give Together

- 23 Days of Caring
- 2,022 staff hours for 17 organizations during working hours
- Value of \$128,110

Notable Highlights:

JINC in the Netherlands

In 2016 Vermilion launched a flagship partnership to support JINC in The Netherlands. Believing that all youth deserve a fair chance in the labour market, JINC helps young people ages 8-16 through vocational orientation and learning social skills in the workplace. We continued our support in 2017 and 2018, providing both financial support and participating in the flash internship program. Our support contributes to our community investment focus on Homelessness & Poverty.



What our staff told us about the program in 2018:

In our 2018 Great Place to Work annual survey, 95% 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:

- The company is genuine. They look for great opportunities to help out in our communities like the United Way Campaign, helping out to serve lunch every month at the Calgary Drop in Centre and give employees the opportunity to serve once per month. They invest in some sort of Christmas initiative every year that employees help choose and participate in and built a building for Wood's Homes and have days of caring at Wood's Homes that all employees can participate in. They encourage employees to volunteer in their communities and donate to the causes that their employees participate in if it is a certain number of hours. There is more but that is some of what they do.
- I love that our Company supports the community! An example being every year Management donates to St Bart's homeless women's shelter. Once a year we all take the day off to donate our time make the residences a better place to live. this year we painted rooms, did gardening etc.The commitment to community investment, corporate culture, safety and the Environment. The tomatoes and the eco-neighborhood is creative and brilliant.
- We support the communities where we work.
- Days of Caring, community involvement is more than I've seen with other employers in the past.

What our communities told us about the program in 2018:

"Our VIPs (Very Important Patients) are the reason we fly. They're the reason we wake up each day striving to find the most innovative ways to succeed. For patients who are critically sick or injured, every second matters. As long as there are people in need of critical care, we'll be there to offer them support. Vermilion makes this possible – you ride along with us on every mission. You help ensure our crew receive the top training and that they have access to the tools they need to save lives."

STARS

"On behalf of St Bart's and our clients I sincerely thank everyone at Vermilion for your support, friendship and willingness to partner with us to help people in need to rebuild their lives. Vermilion have shown an ongoing commitment to the work of our organization and to the people that we are here to support. Your support has been integral in helping achieve our mission to assist the homeless of today to rebuild their lives and act to prevent the homelessness of tomorrow. Thank you."

Nina Ulyett, General Manager, 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 June 2018, 10 staff from Drayton Valley volunteered with the Nature Conservancy of Canada to support the ongoing conservation and stewardship of the NCC's Busenius Property. Working alongside NCC staff, our volunteers spent the day removing 750 metres of barbed wire fence, making the landscape a safer habitat for wildlife to live on and travel through.



The Netherlands

A recipient of funding from The Netherlands Municipal Linkages Program, The Sunflower Foundation was also the recipient of our volunteer manpower on September 12, 2018. Staff took time out of the office to create a special encounter for individuals with a physical disability through a visit to the Aqua Zoo.



Perth, Australia

In December 2018, 23 staff from our Australia Business Unit volunteered with St Bart's House, tackling some much needed projects at the Older Women's Service housing unit, from painting cheerful pastel walls and washing windows to gardening and hosting a BBQ lunch for both staff and St Bart's clients



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 June 2019, our staff worked in the reclamation area, handling frozen foods, mostly meat, 20,350 pounds in total! . This was our 11th Day of Caring supporting Food Bank of the Rockies.



Hanover, Germany

In May 2019, staff from Hanover gave their time to landscape the garden of Seniorenbeirat Rhauferhn, 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 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:

- › Vermilion Energy Family Centre at Wood's Homes in Calgary, Canada
- › Municipal Linkage Program in The Netherlands
- › JINC in The Netherlands
- › Aura Program & Camp fYrefly, supporting LGBT youth
- › Vermilion Energy / YW of Calgary Employment Resource Centre
- › Calgary Zoo
- › Global Emergency Responder Program
- › Global Environmental Stewardship Program
- › Early Childhood Development Centre in Drayton Valley, Canada
- › St. Bartholomew's House in Perth, Australia
- › United Way of Calgary and Area, Canada
- › Charles W. Berard Undergraduate Scholarship in Calgary



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. 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.

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.



Research has established a clear link between mental health and risk factors for living in poverty or becoming homeless. In 2013, we committed \$1 million to help create the Vermilion Energy Family Centre at the Bowness campus of Wood's Homes, because investing in the well-being of children and their families creates critical opportunities to support positive development into adulthood.

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



2018 Update:

Between the program's inception and June 2018, Wood's Homes has provided 51 family stays and helped a total of 194 individuals, including children, youth and their parents/caregivers at the Vermilion Energy Family Centre. The program incorporates significant outcome measurements, including the Systematic Clinical Outcome and Routine Evaluation, Brief Family Distress Scale and family satisfaction outcomes. These are indicating significant positive changes in individual perceptions of their family's problems, strengths, ability to manage crisis, effectiveness of communication and level of distress. Wood's Homes uses these results to evolve the program for optimal effectiveness. Vermilion is pleased to be continuing our support subsequent to the completion of our initial flagship funding.

Municipal Linkage Program in The Netherlands

Vermilion's Netherlands Business Unit launched its Municipality Linkage Program (MLP) in September 2016, to help us visibly support the communities where we are active. We identified 12 municipalities that are priorities for the company, based on our operational activities. Within those locations, we then reached out to key stakeholders such as residents, community organizations and municipalities to help identify strategic community investment options that we could consider funding. Today, we're pleased that community organizations proactively seek us out. In every application, we look for a community need and a local solution that helps to address it.

Projects supported by the MLP touch all pillars of Vermilion's community investment priorities, with the majority of funds spent in the area of homelessness and poverty. While the program only launched in the latter half of 2016, it has already seen tremendous potential in terms of community and employee engagement.

2018 RESULTS

COMMUNITY INVESTMENT

<p>MUNICIPALITY LINKAGE PROGRAM</p>  <p>14 MUNICIPALITIES 60+ CHARITABLE ORGANIZATIONS € 195.000</p>	<p>1 NATIONAL DAY OF CARING</p> <p>35 PHYSICALLY DISABLED GUESTS EXPERIENCED A FUN DAY OUT</p> <p>36% EMPLOYEE PARTICIPATION</p>	<p>11% OF THE EMPLOYEES RECEIVE VOLUNTEER GRANT</p> <p>€ 35.000 FLAGSHIP PARTNERSHIP JINC</p> <p>23% OF THE EMPLOYEES PARTICIPATE IN JINC PROGRAMS</p> 	<p>€ 16.000</p> <p>2 YEAR SUPPORT FOR THE KNRM</p>  <p>PART OF OUR CORPORATE EMERGENCY RESPONDER PROGRAM</p>
---	---	---	---



2019 Update:

The MLP is already proving a success, with our 2018 program supporting 60 organizations in 14 municipalities, providing €195,000 in support. Since its inception in 2016, this program has invested more than €845,000 in municipalities in and around our operations. Here is a look at some of the partnerships that we have supported over the last year.

Resto Van Harte



Zonnenbloem and Lions



It Fryske Gea



Fier



JINC in The Netherlands

In addition to the MLP, we established a flagship partnership between JINC and Vermilion in 2017. 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.

2018 Update:

At the Leeuwarden launch of JINC in 2017, more than 150 students received job interview training from professionals, including five colleagues from Vermilion. The goal of our coaching is to ultimately provide them with better opportunities in the labour market. In addition, we provided several opportunities for one-day internships for JINC youth at Vermilion, including one in which youth replaced our business unit managing director and operations manager for a day.



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.



Vermilion Energy / YWCA Calgary Employment Resource Centre

The YW Employment Resource Centre (ERC) continues to be a vibrant and busy employment centre, serving 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.

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.



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.

2019 Update

In 2018 the Calgary Zoo was able to offer programs to 13 schools, impacting 618 students and 143 teachers. In addition to our financial support, we are proud to bring our people power to our partnerships as well. In March 2019, our HR team helped the Calgary Zoo move the substrate from one area of the panda exhibit to another.



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.



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.

Canada – STARS Air Ambulance

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

The Netherlands – KNRM – Rescue and Help on Water

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.

Australia – Royal Flying Doctor Service

The Royal Flying Doctor Service of Australia is one of the largest aeromedical organizations in the world. 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.

France – SNSM – Les Sauveteurs en Mer

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.

United States – Weston and Niobrara County Fire Protection Districts

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.

Germany – Fire Brigades

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

Central & Eastern Europe – Croatian Mine Action Centre & Hungary Ambulance

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.

**Global Environmental Stewardship Program**

As an oil and gas 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 – Nature Conservancy Canada

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.

The Netherlands – It Fryske Gea

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.

France – Chantier Ecole

By supporting the reintegration of unemployed individuals back into the labour market, organizations involved in this network provide valuable labour resources for projects that focus on protecting the environment and restoring local heritage. This flagship partnership will see support provided to organizations in many areas where we operate.

United States – Thunder Basin Grasslands Prairie Ecosystem Association

Sagebrush and shortgrass prairie habitats are becoming increasingly degraded and fragmented due to multiple influences. Working closely with area stakeholders, the TBGPEA supports conservation efforts in northeastern Wyoming, including the area where Vermilion operates.

Central & Eastern Europe – Scouts Association of Croatia

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.

Australia - Karaakin Black Cockatoo Conservation Centre

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.



Early Childhood Development Centre in Drayton Valley, Canada

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.' "





St. Bartholomew’s House in Perth, Australia

Since 2009, Vermilion has supported St. Bartholomew’s House in Perth, an organization that helps people who are homeless or at risk of homelessness achieve positive life outcomes. It offers a variety of crisis and transitional programs to help people build the connections, skills and confidence to live productive, independent lives in the community and break the cycle of homelessness. Through St. Bart’s, Vermilion’s funding invests in essential facilities and services that will help transform the lives of some of the city’s most vulnerable people. Our contributions support the Lime Street social housing facility and a social inclusion officer for older women at the Kensington Street Accommodation Service, who coordinates activities and outings that positively contribute to the health and wellbeing of the residents.



Vermilion staff have also organized Days of Caring at St. Bart’s since 2012, including a gardening day, social events such as a mini-Olympics, care home renovations, garden landscaping and two camp events for those living in Community Supported Residential Units.



United Way of Calgary and Area, Canada

We believe that for a city to be great, it has to be great for everyone. At the same time, no single organization can tackle systemic issues such as poverty, school completion and isolation in the community alone. United Way brings together all areas of community – business, government, academia, school boards and others – to address social issues at the root cause and to develop long-term strategies to solve them.



That’s why Vermilion has been contributing to United Way since 1996 and organizing an annual United Way workplace campaign since 1998. United Way recognized our efforts with a 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.

2018 Update:

Since 1996, Vermilion has contributed more than \$4 million to support local non-profit organizations and social programs through the United Way.

Our 2018 campaign raised over \$200K, with more than 84% 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.



GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	RobecoSAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	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		
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	
G4-23 102-49	Significant changes from previous reporting periods	About our Report	12.6	1		3.1	
STAKEHOLDER ENGAGEMENT							

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	RobecoSAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	Assurance
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	
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	
G4-36 102-20	Executive level position in EES	Sustainability Governance	16.6-7	1	Risk Governance Stakeholder engagement	4.2	
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	
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	
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	
G4-43 103-27	Measures to develop highest governance body's knowledge about EES	Our Approach to Governance	16.6-7	1		4.2	
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	
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	
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	
G4-47 102-31	Frequency of 4-46 review	Quarterly	16.6-7	1		4.4	
G4-48 102-32	Highest level of formal sustainability report review	CEO	16.6-7	1		4.2	
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	

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	RobecoSAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	Assurance
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	
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	
G4-57 102-17	Mechanisms for seeking advice on ethical issues	Ethical Culture	16.5	12, 13, 14	Systems / procedures	3.3	
G4-58 102-17	Mechanisms for reporting ethical concerns	Ethical Culture	16.5	12, 13, 14	Reporting on breaches	3.3	
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	
G4-EC2SS	Reduction in water use	Water Use Performance Metrics	14.1, 15.1	9, 10, 11		4.6a	
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	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	
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	

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	RobecoSAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	Assurance
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	
OG-3	Total amount of renewable energy generated by source	Performance Metrics	7.2-3, 17.17	9, 10, 11		4.6a	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
G4-EN18, SS 305-4	Greenhouse gas (GHG) emissions intensity	Performance Metrics	12.1-2, 13.1	9, 10, 11		4.6a	
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	
G4-EN20 305-6	Emissions of ozone-depleting substances (ODS)	Performance Metrics	12.1-2, 13.1	9, 10, 11		4.6a	
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	
Effluents & Waste							

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	RobecoSAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	Assurance
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	
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	
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	
OG-5	Produced water by disposal method	Performance Metrics	14.1-2	9, 10, 11		4.6a	
OG-6	Volume of flared and vented hydrocarbon	Performance Metrics	14.1-2	9, 10, 11		4.6a	
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	
EN-31 N/A	Total environmental expenditures	Performance Metrics	12.1-2	9, 10, 11	ROI (environment)	4.6a	
SOCIAL							
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	
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	
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	
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	
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							

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	RobecoSAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	Assurance
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 support the continued employability of employees and assist them in managing career endings	Performance Management, Training and Development	8.2, 8.5	6, 7, 8	Employee development programs	4.6b	
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	
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	
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	
Human Rights Grievance Mechanisms							
G4-DMA		Ethics & Anti-Corruption Sustainability Policy Our Approach to Communities	8.8, 16.1	3, 4, 5		4.6c	
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	
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	
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	
G4-SO2 413-2	Operations with significant actual and potential negative impacts on local communities	As a responsible energy producer, Vermilion has, in addition to our overall HSE approach, established management tools and processes that are specific to the 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	3.6, 6.6, 7.2, 7.3, 9.4, 12.1-2	16, 18	Relocation programs (note: no relocations of local people or communities)	4.6b	
Anti-corruption							
DMA		Ethics & Anti-Corruption	16.5	12, 13, 14	Code of business conduct	3.3	
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	

GRI CONTENT INDEX

GRI G4 Indicator and GRI Standard	Indicator Description	Location or Description	UN SDG	UN Global Compact	RobecoSAM	EU Directive 2014/95/EU Guidelines on non-financial reporting 2017/C 215/01	Assurance
G4-SO4 205-2	Communication and training on anti-corruption policies and procedures	Performance Metrics	16.5	12, 13, 14		3.3	
G4-SO5 205-3	Confirmed incidents of corruption and actions taken	Performance Metrics	16.5	12, 13, 14	Reporting on breaches	3.3	
G4-SO6 415-1	Political donations	Performance Metrics	16.5	12, 13, 14, 17	Policy influence	3.3	
G4-SO7 206-1	Anti-competitive practices	No legal actions	16.5	12, 13, 14	Anti-competitive practices	3.3	
G4-SO8 419-1	Fines for non-compliance	Performance Metrics	16.5	12, 13, 14		3.3	

MATERIAL TOPIC	2012	2013	2014	2015	2016	2017	2018	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		102-7
Canada	304,202	382,005	537,788	320,613	252,867	330,903	671,172		102-7
France	388,410	453,315	431,252	281,422	246,863	268,103	360,602		102-7
Netherlands	123,528	139,570	123,815	129,057	100,707	108,060	165,916		102-7
Germany			41,962	41,384	29,049	68,696	82,449		102-7
Ireland				57	109,156	153,330	205,150		102-7
Central & Eastern Europe					0	0	3,630	As per p 30 of 2018 Annual Report: CEE exploratory well & Corp combined	102-7
Australia	266,963	298,945	283,481	162,765	136,835	154,391	150,733		102-7
United States			1,330	4,288	7,314	15,355	38,465		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		102-7
Canada	55,418	55,804	76,178	89,085	71,543	80,444	177,499		102-7
France	54,907	66,997	61,729	50,718	50,000	51,002	54,690		102-7
Netherlands	19,149	20,617	24,041	22,746	20,796	21,212	26,681		102-7
Germany			8,686	10,956	12,379	20,176	23,048		102-7
Ireland				15	18,646	17,596	15,366		102-7
Central & Eastern Europe					0	0	110	As per p 30 of 2018 Annual Report: CEE exploratory well & Corp combined	102-7
Australia	48,968	51,625	61,432	51,676	47,507	50,139	53,199		102-7
United States			241	742	1,314	1,698	6,421		102-7
Employee wages and benefits costs: \$M	116,134	134,729	168,552	155,638	139,838	137,831	174,831		102-7
Canada	71,167	86,714	95,021	79,066	73,642	70,581	93,750		102-7
France	17,672	19,945	24,948	22,419	19,216	22,904	23,733		102-7
Netherlands	9,598	9,514	14,378	19,192	18,605	14,492	15,080		102-7
Germany			681	3,787	3,850	5,851	6,846		102-7
Ireland				0	0	0	1,809	1 month of Corrib operatorship + full year of Vermilion Ireland	102-7
Central & Eastern Europe					569	991	1,171	CEE	102-7
Australia	17,697	18,556	29,628	26,248	18,820	17,715	26,016		102-7
United States			3,896	4,986	5,136	5,297	6,426		102-7
Dividends declared: \$M	223,717	242,599	272,732	283,575	299,070	311,397	388,111		102-7
Interest payments: \$M	27,586	38,183	49,655	59,852	56,957	57,313	72,759		102-7
Taxes paid: \$M	181,913	218,359	157,336	51,115	19,678	32,107	43,577		102-7
Canada	1,582	1,403	1,420	1,091	1,097	527	513		102-7
France	63,006	94,524	66,901	23,764	2,867	10,556	15,084		102-7
Netherlands	25,648	34,132	4,154	12,152	6,624	(3,331)	16,561		102-7
Germany			44	0	0	0	0		102-7
Ireland				0	0	0	0		102-7
Central & Eastern Europe					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		102-7
United States			0	0	0	0	0		102-7
Royalties paid: \$M	52,084	67,936	108,000	65,920	54,284	74,476	152,167		EC1SS

MATERIAL TOPIC	2012	2013	2014	2015	2016	2017	2018	Context	GRI
Canada	31,667	40,891	65,563	28,144	21,475	33,258	84,696		EC1SS
France	20,417	27,045	28,444	26,958	27,091	28,565	46,781		EC1SS
Netherlands	0	0	5,014	3,082	1,462	1,722	3,181		EC1SS
Germany			8,613	6,479	2,089	6,655	6,626		EC1SS
Ireland				0	0	0	0		EC1SS
Central & Eastern Europe					0	0	813	As per p 30 of 2018 Annual Report: CEE exploratory well & Corp combined	EC1SS
Australia	0	0	0	0	0	0	0		EC1SS
United States			366	1,257	2,167	4,276	10,070		EC1SS
Community investment (also see communities metrics): \$M	718	1,076	1,345	1,048	1,392	1,470	1,587		102-7
Canada	531	801	919	722	947	852	908	Includes corporate program costs	102-7
France	117	188	189	158	109	187	155		102-7
Netherlands	41	29	114	89	225	315	277		102-7
Germany			0	0	9	2	68		102-7
Ireland				0	0	0	70		102-7
Central & Eastern Europe					0	3	4		102-7
Australia	29	58	124	65	95	101	88		102-7
United States			0	14	7	10	17		102-7
Direct economic value distributed: \$M	780,594	897,925	989,927	843,086	793,404	856,861	1,190,046	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		102-7
Economic value distributed in France Business Unit	156,119	208,699	182,211	124,017	99,283	113,214	140,443		102-7
Economic value distributed in Netherlands Business Unit	54,436	64,292	47,701	57,261	47,712	34,410	61,780		102-7
Economic value distributed in Germany Business Unit			18,024	21,222	18,327	32,684	36,588		102-7
Economic value distributed in Ireland Business Unit				15	18,646	17,596	17,245		102-7
Economic value distributed in CEE Business Unit					569	994	2,098		102-7
Economic value distributed in Australia Business Unit	158,371	158,539	176,001	92,097	75,512	92,310	90,722		102-7
Economic value distributed in US Business Unit			4,503	6,999	4,057	6,975	22,934		102-7
Economic value distributed via dividends & Interest	251,303	280,782	322,387	343,427	356,027	368,710	460,870		
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	2012-13: Cda FR Aus NL; 2014-5: + Hungary US; 2016: + Croatia	102-7
Common shares outstanding (basic): MM	99	102	107	112	118	122	153		102-7
Market capitalization: \$ billions	5.13	6.37	6.12	4.21	6.68	5.58	4.39		102-7
Fund flows from operations: \$M	557,728	667,526	804,865	517,167	510,791	602,565	838,652		102-7
Fund flows from operations per basic share	5.69	6.61	7.63	4.71	4.41	5.00	5.96		102-7
Fund flows from operations per diluted share	5.62	6.51	7.51	4.65	4.36	4.92	5.89		102-7
Net earnings: \$M	190,622	327,641	269,326	(217,302)	(160,051)	62,258	271,650		102-7
Net earnings per basic share	1.94	3.24	2.55	(1.98)	(1.38)	0.52	1.93		102-7
Capital expenditures: \$M	452,538	542,726	687,724	486,861	242,408	320,449	518,214	E&D Capex	102-7
Acquisitions: \$M	315,438	36,689	601,865	28,897	98,524	27,637	1,759,425		102-7
Cash dividends per share	2.28	2.40	2.58	2.58	2.58	2.58	2.72		102-7
Dividends as % of fund flows from operations, gross	40%	36%	34%	55%	59%	52%	46%		102-7

MATERIAL TOPIC	2012	2013	2014	2015	2016	2017	2018	Context	GRI
Dividends as % of fund flows from operations, net	27%	26%	24%	25%	21%	33%	40%		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		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		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		102-7
Total annual shareholder return	19.6%	24.6%	-4.4%	-29.5%	57.1%	-14.6%	-32.6%		102-7
OPERATIONS AND RESERVES									
Number of operations (operated business units)	4	4	5	5	5	7	8	Ireland operated as of November 30, 2018	102-7
Production – total: boe/d	37,803	41,005	49,573	54,922	63,526	68,021	87,270		G4-9
Production – crude oil: bbls/d	23,971	25,741	28,879	28,502	27,852	27,721	39,182		G4-9
Production - NGLs: bbls/d	1,299	1,730	2,533	4,214	2,582	4,194	6,366		G4-9
Production – natural gas: mcf/d	75,200	81,210	108,850	133,240	198,550	217	250		G4-9
Total proved + probable reserves, gross: mboe	143,695	174,453	212,518	227,102	290,122	298,490	488,145	2012-3: Cda, FR, NL, AUS; 2014-5: Adds US; 2016+: all BUs	OG1

MATERIAL TOPIC	2012	2013	2014	2015	2016	2017	2018	Context	GRI
COMMUNITY INVESTMENT									
Community investment total: a+b below (\$ thousands)	718	1,076	1,345	1,048	1,392	1,470	1,587	Paid only to non-profit/charitable organizations	102-7
Canada	531	801	919	722	947	852	908	Includes corporate program costs	102-7
France	117	188	189	158	109	187	155		102-7
Netherlands	41	29	114	89	225	315	277		102-7
Germany				-	9	2	68		102-7
Ireland				-	-		70		102-7
Central & Eastern Europe						3	4		102-7
Australia	29	58	124	65	95	101	88		102-7
United States			-	14	7	10	17		102-7
COMMUNITY IMPACT									
Operations with local community engagement programs: %	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	400 community groups supported	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	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		413-1
c. External resources leveraged (e.g. staff, government matching): \$	246,578	234,780	278,659	300,610	137,695	338,029	571,945	Includes partner contributions (e.g. MLP in NL). Increase due to change from non-operating to operating Corrib (Ireland)	413-1
Other community investment (e.g. private-public partnerships) : \$	70,000	140,000	44,100	-	-	-	-	Road safety - Parentis roundabout	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	Paid only to 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		413-1
Employee Volunteering During Working Hours									
Days of Caring: # of events	N/T	N/T	N/T	N/T	N/T	26	23		413-1
Days of Caring: Employee hours	1,000	1,179	2,128	1,995	2,135	1,932	2,022		413-1
Days of Caring: # of individuals supported	N/T	N/T	N/T	N/T	N/T	55,755	36,490		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		413-1

MATERIAL TOPIC	2012	2013	2014	2015	2016	2017	2018	Context	GRI
GOVERNANCE									
Ratio of annual total compensation of highest-paid individual to median annual total compensation all permanent employees	17.5	24.9	26.9	26.8	24.7	25.5	41.3	Compensation includes base salary, bonus, Vermilion Incentive Plan, and allowances (e.g., holiday pay) CEO only: not broken down by highest paid individual per country due to privacy regulations	102-38
Ratio of % change in CEO compensation to % change in employee median compensation	n/a	13:1	4:1	1:1	-16:1	2:1	17:1		102-39
ETHICS									
Requests for advice on ethical behaviour via corporate secretary	0	0	0	0	0	0	0		102-17
Total number of concerns expressed via whistleblower line	0	0	0	0	0	1	0		102-17, 102-34
Violations of rights, including those of Indigenous peoples	0	0	0	0	0	0	0		411-1
Legal actions regarding anti-competitive behaviour	0	0	0	0	0	0	0		206-1
Monetary value of fines for non-compliance with laws & regulations	0	0	0	0	0	0	0		206-1, 419-1
Political donations	0	0	0	0	0	0	0	Also see ESTMA (EITI) report on payments to governments	415-1
Financial Assistance Received from Government: \$	0	0	0	0	0	\$36,757	\$89,583	Canada Alberta Job Grant program reimbursement; 2017 updated	201-4
ANTI-CORRUPTION									
Percentage of operations assessed for risks related to corruption	100	100	100	100	100	100	100		205-1
% of governance body communicated to on anti-corruption	100	100	100	100	100	100	100	Annual conduct policy acknowledgement: Q1 2018	205-2a
# of employees communicated to on anti-corruption	366	437	535	520	492	506	553	Annual conduct policy acknowledgement: Q1 2018	205-2b
% of employees communicated to on anti-corruption	100	100	100	100	97	100	99%	Regional breakdown not required due to high coverage	205-2b
# of contractors communicated to on anti-corruption	N/T	N/T	N/T	N/T	156	179	265	Annual conduct policy acknowledgement: Q1 2018	205-2b
% of contractors communicated to on anti-corruption	N/T	N/T	N/T	N/T	99	100	99%	Regional breakdown not required due to high coverage	205-2b
% of business partners communicated to on anti-corruption	N/T	N/T	N/T	N/T	N/T	100	100	Business partners defined as joint venture partners	205-2c
# of governance body members trained on anti-corruption	8	8	9	12	11	9	10		205-2d
% of governance body members trained on anti-corruption	100	100	100	100	100	100	100		205-2d
# of employees and contractors trained on anti-corruption	0	18	18	18	18	66	266		205-2e
% of employees and contractors trained on anti-corruption	0	4	4	4	4	13	26		205-2e
Confirmed incidents of corruption	0	0	0	0	0	0	0		206-1

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

Material Topic	2012	2013	2014	2015	2016	2017	2018	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		
Australia: Female Under 30	0	0	0	0	0	0	0		
Australia: Male 30-50	3	3	3	0	0	0	0		
Australia: Female 30-50	0	0	0	0	0	0	0		
Australia: Male Over 50	1	0	2	0	0	0	0		
Australia: Female Over 50	0	0	0	0	0	0	0		
Canada: Male Under 30	3	6	13	1	0	3	11		
Canada: Female Under 30	2	5	5	1	3	1	7		
Canada: Male 30-50	13	23	22	2	0	7	48		
Canada: Female 30-50	8	15	11	4	6	3	27		
Canada: Male Over 50	4	4	5	2	1	0	4		
Canada: Female Over 50	5	4	9	1	0	1	11		
Central & Eastern Europe: Male Under 30					0	1	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					1	1	2		
Central & Eastern Europe: Male Over 50					0	0	0		
Central & Eastern Europe: Female Over 50					0	0	0		
France: Male Under 30	2	9	4	0	3	3	5		
France: Female Under 30	0	3	4	0	0	0	0		
France: Male 30-50	1	17	13	0	0	3	3		
France: Female 30-50	0	5	4	1	0	1	2		
France: Male Over 50	1	1	1	0	0	1	0		
France: Female Over 50	0	0	0	0	0	0	0		
Germany: Male Under 30			0	0	0	1	1		
Germany: Female Under 30			0	0	1	0	1		
Germany: Male 30-50			1	3	0	7	2		
Germany: Female 30-50			1	0	1	1	1		
Germany: Male Over 50			0	0	1	6	0		
Germany: Female Over 50			0	0	0	0	2		
Ireland: Male Under 30							4		
Ireland: Female Under 30							0		
Ireland: Male 30-50							47		
Ireland: Female 30-50							15		
Ireland: Male Over 50							9		
Ireland: Female Over 50							2		
Netherlands: Male Under 30	0	2	3	0	0	2	1		
Netherlands: Female Under 30	0	2	1	0	0	0	1		
Netherlands: Male 30-50	2	15	8	2	0	3	5		
Netherlands: Female 30-50	0	0	3	2	3	0	1		

Material Topic	2012	2013	2014	2015	2016	2017	2018	Context	GRI
Netherlands: Male Over 50	1	2	6	1	0	2	1		
Netherlands: Female Over 50	0	0	1	0	0	0	0		
United States: Male Under 30			0	0	0	0	0		
United States: Female Under 30			0	0	1	0	0		
United States: Male 30-50			2	3	0	1	4		
United States: Female 30-50			1	0	0	0	4		
United States: Male Over 50			3	0	0	0	2		
United States: Female Over 50			2	0	0	0	1		
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%	3	
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%	11	
Canada: Female Under 30	22%	36%	36%	0%	43%	0%	1%	7	
Canada: Male 30-50	17%	25%	20%	2%	0%	1%	7%	48	
Canada: Female 30-50	14%	21%	17%	7%	11%	1%	4%	27	
Canada: Male Over 50	13%	11%	13%	6%	4%	0%	1%	4	
Canada: Female Over 50	16%	12%	29%	3%	0%	0%	2%	11	
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%	2	
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%	5	
France: Female Under 30	0%	43%	36%	0%	0%	0%	0%	0	
France: Male 30-50	30%	34%	21%	0%	0%	1%	0%	3	
France: Female 30-50	0%	19%	14%	3%	0%	0%	0%	2	
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%	1	
Germany: Female Under 30			0%	NA	100%	0%	0%	1	
Germany: Male 30-50			13%	60%	0%	1%	0%	2	
Germany: Female 30-50			50%	0%	67%	0%	0%	1	
Germany: Male Over 50			0%	NA	200%	1%	0%	0	
Germany: Female Over 50			0%	NA	0%	0%	0%	2	
Ireland: Male Under 30							1%	4	
Ireland: Female Under 30							0%	0	
Ireland: Male 30-50							7%	47	
Ireland: Female 30-50							2%	15	
Ireland: Male Over 50							1%	9	
Ireland: Female Over 50							0%	2	

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

Material Topic	2012	2013	2014	2015	2016	2017	2018	Context	GRI
Ireland: Female 30-50							0		
Ireland: Male Over 50							0		
Ireland: Female Over 50							0		
Netherlands: Male Under 30	1	0	0	0	0	0	0		
Netherlands: Female Under 30	0	0	0	0	0	0	1		
Netherlands: Male 30-50	0	0	3	2	5	4	2		
Netherlands: Female 30-50	0	0	1	0	2	1	0		
Netherlands: Male Over 50	2	0	1	0	2	1	4		
Netherlands: Female Over 50	0	0	0	0	0	0	0		
United States: Male Under 30				0	0	0	0		
United States: Female Under 30				0	0	0	0		
United States: Male 30-50				0	1	0	2		
United States: Female 30-50				0	0	0	0		
United States: Male Over 50				0	0	1	1		
United States: Female Over 50				0	0	0	1		
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%		
Australia: Female Under 30	0	0	0%	NA	0%	0.0%	0.0%		
Australia: Male 30-50	7	30	6%	5%	0%	0.0%	0.1%		
Australia: Female 30-50	0	0	0%	0%	0%	0.2%	0.0%		
Australia: Male Over 50	0	9	10%	20%	0%	0.2%	0.0%		
Australia: Female Over 50	0	0	0%	0%	0%	0.0%	0.1%		
Canada: Male Under 30	0	25	12%	16%	7%	0.4%	0.3%		
Canada: Female Under 30	21	9	10%	32%	0%	0.2%	0.1%		
Canada: Male 30-50	13	7	3%	6%	7%	1.6%	1.6%		
Canada: Female 30-50	9	13	7%	12%	13%	1.0%	1.4%		
Canada: Male Over 50	13	3	3%	25%	28%	0.2%	0.7%		
Canada: Female Over 50	10	31	7%	14%	20%	0.8%	0.9%		
Central & Eastern Europe: Male Under 30					0	0.0%	0.0%		
Central & Eastern Europe: Female Under 30					0	0.0%	0.0%		
Central & Eastern Europe: Male 30-50					0	0.0%	0.0%		
Central & Eastern Europe: Female 30-50					0	0.0%	0.0%		
Central & Eastern Europe: Male Over 50					0	0.0%	0.0%		
Central & Eastern Europe: Female Over 50					0	0.0%	0.0%		
France: Male Under 30	0	6	5%	0%	0%	0.0%	0.3%		
France: Female Under 30	0	0	14%	0%	0%	0.0%	0.0%		
France: Male 30-50	5	12	2%	0%	2%	0.2%	0.0%		
France: Female 30-50	0	4	0%	0%	0%	0.0%	0.0%		
France: Male Over 50	6	11	6%	9%	3%	2.0%	0.3%		
France: Female Over 50	0	0	0%	14%	0%	0.0%	0.1%		
Germany: Male Under 30				NA	0%	0.0%	0.0%		
Germany: Female Under 30				NA	0%	0.0%	0.0%		
Germany: Male 30-50				0%	0%	0.4%	0.1%		
Germany: Female 30-50				0%	0%	0.2%	0.0%		

Material Topic	2012	2013	2014	2015	2016	2017	2018	Context	GRI
Germany: Male Over 50				NA	0%	0.0%	0.1%		
Germany: Female Over 50				NA	0%	0.0%	0.0%		
Ireland: Male Under 30							0.0%		
Ireland: Female Under 30							0.0%		
Ireland: Male 30-50							0.1%		
Ireland: Female 30-50							0.0%		
Ireland: Male Over 50							0.0%		
Ireland: Female Over 50							0.0%		
Netherlands: Male Under 30	0	0	0%	0%	0%	0.0%	0.0%		
Netherlands: Female Under 30	0	0	0%	0%	0%	0.0%	0.1%		
Netherlands: Male 30-50	0	0	13%	6%	16%	0.8%	0.3%		
Netherlands: Female 30-50	0	0	50%	0%	67%	0.2%	0.0%		
Netherlands: Male Over 50	44	0	12%	0%	14%	0.2%	0.6%		
Netherlands: Female Over 50	0	0	0%	0%	0%	0.0%	0.0%		
United States: Male Under 30				NA	0%	0.0%	0.0%		
United States: Female Under 30				NA	0%	0.0%	0.0%		
United States: Male 30-50				0%	3%	0.0%	0.3%		
United States: Female 30-50				0%	0%	0.0%	0.0%		
United States: Male Over 50				0%	0%	0.2%	0.1%		
United States: Female Over 50				0%	0%	0.0%	0.1%		
Total Global Turnover Rate			5.6%	7.9%	7.4%	8.8%	8.3%	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		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		
Proportion of female employees entitled to parental leave	100	100	100	100	100	100	100		
Total proportion of employees entitled to parental leave %	100	100	100	100	100	100	100		
Number of male employees who took parental leave	1	1	6	5	7	7	6	Based on employees whose leave finished that year	
Number of female employees who took parental leave	4	9	16	4	5	6	7	Based on employees whose leave finished that year	
Total number of employees who took parental leave	5	10	22	9	12	13	13		
Number of male employees returned after parental leave	1	1	6	5	7	7	6	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	Based on employees whose leave finished that year and returned to work	
Total number of employees returned after parental leave	4	10	15	11	12	12	13		
Rate of male employees who returned after parental leave	100%	100%	100%	100%	100%	100%	100%		
Rate of female employees who returned after parental leave	75%	100%	56%	100%	100%	83%	100%		
Retention: # of male employees 12 months after parental leave					5	6	6	Based on employees returned in previous year	
Retention: # of female employees 12 months after parental leave					5	2	5	Based on employees returned in previous year	

Material Topic	2012	2013	2014	2015	2016	2017	2018	Context	GRI
12-month retention rate: male employees					100%	86%	100%		
12-month retention rate: female employees					100%	66%	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		
Hours of Training - Female	2,471	3,447	3,918	1,823	1,550	1,638	2,918		
Total Hours of Training - Employees	5,891	7,744	15,992	7,877	8,913	8,526	13,023		
Average Hours of Training per employee - Male	14	14	33	17	21	19	21		
Average Hours of Training per employee - Female	18	22	23	11	10	11	14		
Average Hours of Training - Employees	16	17	30	15	18	17	19		
Administration Staff Hours of Training - Male	940	1,051	1,156	479	575	391	684		
Administration Staff Hours of Training - Female	1,632	2,206	2,873	1,362	900	877	1,427		
Production Staff Hours of Training - Male	2,480	3,246	10,919	5,575	6,787	6,497	9,422		
Production Staff Hours of Training - Female	839	1,241	1,045	462	650	391	1,491		
Administration Staff Average Hours of Training - Male	17	5	17	18	8	5	9	2014 and 2015: per employee trained	
Administration Staff Average Hours of Training - Female	20	37	22	18	8	8	11	2016+: per employee total	
Production Staff Average Hours of Training - Male	34	13	32	36	24	23	23		
Production Staff Average Hours of Training - Female	10	23	26	23	20	24	19		
PERFORMANCE AND CAREER DEVELOPMENT - PERMANENT EMPLOYEES									404-3
Male employees with annual performance/career review			93%	94%	95%	95%	100%		
Female employees with annual performance/career review			94%	97%	90%	94%	97%		
Total employees with annual performance/career review		44%	93%	95%	93%	92%	99%		
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%		
Percentage of salary contributed by employee	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		
Rate of participation in defined contribution pension plan - NL	0%	0%	0%	10%	27%	38%	46%	Defined contribution plan began in 2015	
Rate of participation in defined benefit pension plan - NL	100%	100%	100%	90%	73%	62%	54%		

Ireland														296540		
Absentee rate – independent contractors		N/T		N/T		N/T		N/T		N/T		N/T		N/T	Current system does not track absentee days for independent contractors, so this figure cannot be calculated	403-2

MATERIAL TOPIC	2012	2013	2014	2015	2016	2017	2018	CONTEXT	GRI
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		302-1
Canada	1,897,339	1,977,236	2,130,186	2,022,377	1,939,422	1,929,996	2,809,879	Increase due to acquisition of assets in Saskatchewan in May 2018	
France	7,062	26,016	35,351	19,925	25,136	20,583	-	Change in methodology associated with vehicle travel (Moved to Scope 3)	
Netherlands	31,897	31,248	33,842	14,148	50,336	77,023	60,390		
Australia	787,817	723,861	811,060	793,525	743,563	812,226	864,934		
United States			1,652	120,259	110,596	114,077	199,893	Increase in production YOY	
Germany						21,323	120,844	Change associated with production of power	
Central and Eastern Europe - Hungary							2,932	First production in 2018	
Ireland							73,996	Reflects Vermilion's operatorship of November 30, 2018	
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	1 MWh = 3.6 GJ	302-2
Canada	169,481	169,481	181,438	223,557	238,787	232,346	750,356	Increase due to acquisition of assets in Saskatchewan in May 2018	
France	531,306	562,861	551,298	656,877	606,370	581,926	623,641		
Netherlands	309,845	239,742	287,681	313,423	8,590	-	0	2017: Purchase of Guarantees of Origin of green electricity at 105% of our consumption	
Australia	642	867	695.04	772	787	727	669		
United States			1317.35	3,955	3,556	4,229	10,969	Increase in production YOY	
Germany						14,612	17,369		
Central and Eastern Europe - Hungary							17	First production in 2018	
Ireland							0	Reflects Vermilion's operatorship of November 30, 2018	
Energy intensity ratio Scope 1=2: GJ/boe	0.34	0.32	0.22	0.21	0.16	0.15	0.17		302-3
Renewable energy	2012	2013	2014	2015	2016	2017	2018		
Total amount invested in renewable energy, CND \$	\$140,000	\$140,000	\$147,000	\$42,600	\$434,385	\$446,385	\$1,306,667		OG2
Canada	\$0	\$0	\$0	\$0	\$0	\$0	\$391,000	Solar panels installed in ~20 field locations	
France	\$140,000	\$140,000	\$0	0	\$0	\$12,000	\$312,000	H2020 MEET project, Parentis and La Teste geothermal from produced water projects	
Netherlands	\$0	\$0	\$147,000	\$42,600	\$434,385	\$434,385	\$603,667	Gas to geothermal, biogas and solar projects	
Australia	\$0	\$0	\$0	0	\$0	\$0	\$0		
United States				0	\$0	\$0	\$0		
Germany						\$0	\$0		
Central and Eastern Europe - Hungary							\$0		
Ireland							\$0		
Renewable energy investment: % of capital expenditure	0.03	0.03	0.02	0.01	0.2	0.1	0.3	*Capex 2012 = \$453MM *Capex 2013 = \$543MM *Capex 2014 = \$688MM *Capex 2015 = \$487MM *Capex 2016 = 242MM *Capex 2017 = \$320MM *Capex 2018 = \$518MM	OG2
Renewable energy GHG emissions avoided: tCO2e	125,000	125,000	125,000	125,000	125,000	125,000	125,099	Based on 10,000 tonnes of CO2e/yr not generated, assuming electricity use for heating, using a France Grid Intensity Factor of 0.08 kg CO2/kWh *	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		
Canada	0	0	0	0	0	0	0		
France	31,380	31,380	31,380	31,380	32,800	70,080	77,088		
Netherlands	0	0	0	0	0	0	0		
Australia	0	0	0	0	0	0	0		
United States				0	0	0	0		
Germany						0	0		
Central and Eastern Europe - Hungary							0		
Ireland							0		
EMISSIONS	2012	2013	2014	2015	2016	2017	2018		GRI
Scope 1 gross direct GHG emissions: tonne	288,781	310,285	511,213	441,193	355,746	344,186	742,175	Based on operational control and equity	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	Hydrofluorocarbons, Perfluorocarbons, Sulfur hexafluoride, VOCs, particulates not tracked	305-1, SS
Canada			310,306	202,942	126,429	133,430	300,947	Increase due to acquisition of assets in Saskatchewan in May 2018	
France			57,374	48,525	50,238	63,197	61,169		

Netherlands			27,871	43,058	52,159	23,954	15,198		
Australia			45,822	46,013	40,783	42,409	46,587		
United States			1,466	7,464	14,009	13,693	19,152	Increase in production YOY	
Germany						1,460	9,710		
Central and Eastern Europe - Hungary							285	First production in 2018	
Ireland							3,769	Reflects Vermilion's operatorship of November 30, 2018	
Methane: tCO2e	38,718	50,436	68,174	92,927	71,890	65,782	284,762		SS
Canada	38,718	50,436	16,274	52,975	32,948	30,847	241,279	Increase due to acquisition of assets in Saskatchewan in May 2018	
France			12,865	12,852	10,565	9,236	10,197		
Netherlands			22,233	9,436	10,419	8,315	5,318		
Australia			16,727	17,294	16,959	13,611	16,961		
United States			74	371	998	370	1,468		
Germany						3,403	9,101		
Central and Eastern Europe - Hungary							384	First production in 2018	
Ireland							54	Reflects Vermilion's operatorship of November 30, 2018	
Nitrous Oxide (N₂O): tCO2e	Not tracked	Not tracked	201	263	237	260	596		SS
Canada	Not tracked	Not tracked	0	50	50	99	378	Increase due to acquisition of assets in Saskatchewan in May 2018	
France	Not tracked	Not tracked	109	118	113	102	107	More gas is being flared via incinerator than flare: 99.9% combustion efficiency vs 98%	
Netherlands	Not tracked	Not tracked	0	0	0	0	22		
Australia	Not tracked	Not tracked	92	96	66	57	82		
United States	Not tracked	Not tracked	0	0	7	1	5		
Germany						1	2		
Central and Eastern Europe - Hungary							0		
Ireland							0	Reflects Vermilion's operatorship of November 30, 2018	
Scope 1 GHG emissions intensity, oil and gas production	0.0209	0.0207	0.028	0.023	0.015	0.014	0.023	tCO2e per barrel of oil equivalent	305-4
Scope 2 gross indirect GHG emissions: tCO2e	85,223	79,309	73,410	96,600	69,318	60,904	173,847		305-2
Canada			41,007	48,900	60,064	55,088	160,369	Increase due to acquisition of assets in Saskatchewan in May 2018	
France			12,251	7,619	7,560	8,959	11,444	Change associated with change in grid mix intensity	
Netherlands			19,908	39,631	1,271	(4,328)	0	Purchase of Guarantees of Origin of green electricity in excess of our consumption	
Australia			151	163	166	141	130		
United States			93	288	257	308	787	Increase in production YOY	
Germany						735	1,090		
Central and Eastern Europe - Hungary							1	First production in 2018	
Ireland							25	Reflects Vermilion's operatorship of November 30, 2018	
Scope 2 GHG emissions intensity: tCO2e per boe	0.0062	0.0053	0.004	0.005	0.003	0.002	0.005		305-5
Scope 3 Gross other indirect GHG emissions: tCO2e	2,839	9,860	2,997,538	7,858,296	7,697,489	8,393,391	12,408,270	Increasing sophistication of calculation methodology & reporting	305-3
Biogenic CO ₂ Scope 3 emissions	0	0	0	0	0	0	0		305-3
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	Included in Gross other indirect emissions above	SS
Emissions of ozone-depleting substances	0	0	0	0	0	0	0		305-6
NOx			2,847	0	20	26	29		305-7
Canada			1,971	Not Tracked	Not Tracked	Not Tracked	Not Tracked		
France			876	Not Tracked	15	18	22		
Netherlands			0	Not Tracked	6	7	7		
Australia			0	Not Tracked	0	0	0		
United States			0	Not Tracked	0	0	0		
Germany						0	0		
Central and Eastern Europe - Hungary							0		
Ireland							0	Reflects Vermilion's operatorship of November 30, 2018	
SO2			2847	544	675	675	736		305-7
Canada			1971	181	364	166	198		
France			876	363	300	509	538		
Netherlands			0	0	0	0	0		
Australia			0	0	0	0	0		
United States			0	0	10	0	0		

Germany						0	0		
Central and Eastern Europe - Hungary							0		
Ireland							0	Reflects Vermilion's operatorship of November 30, 2018	
FLARING AND VENTING	2012	2013	2014	2015	2016	2017	2018		
Volume of flared hydrocarbon: e3m3	15,032.79	17,891.39	71,683	54,405	29,266	35,920	69,906	Note that all flared volumes are reported, not just continuous flares	OG6
Canada	2,173	3,137	46,885	35,000	8,168	12,023	45,455	Increase due to acquisition of assets in Saskatchewan in May 2018	OG6
France	11,347	14,108	22,284	17,472	16,564	21,492	21,261		OG6
Netherlands	779	354	1,771	371	344	472	201		OG6
Australia	734	293	513	442	263	309	788		OG6
United States			230	1,119	3,927	1,561	1,858	Increase in production YOY	OG6
Germany						64	289		OG6
Central and Eastern Europe - Hungary							32	First production in 2018	OG6
Ireland							22	Reflects Vermilion's operatorship of November 30, 2018	OG6
Volume of continuously vented hydrocarbon: e3m3	2,862	3,818	3,583	3,714	2,941	5,961	16,144		OG6
Canada	864	1,069	1,156	1,007	645	648	9,447	Increase due to acquisition of assets in Saskatchewan in May 2018	OG6
France	100	953	963	1,185	840	773	847		OG6
Netherlands	732	709	381	303	196	194	260		OG6
Australia	1,166	1,088	796	1,197	1,180	919	1,097		OG6
United States			286	23	79	9	25		
Germany						3,417	4,444		OG6
Central and Eastern Europe - Hungary							21	First production in 2018	OG6
Ireland							3	Reflects Vermilion's operatorship of November 30, 2018	OG6
Flaring/Venting Intensity based on production: e3m3/BOE	0.0013	0.0015	0.0042	0.0029	0.0014	0.0017	0.0027		OG6
Enhanced Oil Recovery from Carbon Capture and Storage	** NEW REPORTING FOR 2018 **								
Volume of oil and NGLs produced from CCS ops: bbls/d							2,321	From Saskatchewan assets acquired in 2018: non-operated	
Percentage of total (global) oil and NGLs produced							5	Global oil & NGLs 2018: 45,548 bbls/d	
Hydraulic Fracturing	Hydraulic fracturing is used only in Canada and US; not in Europe or Australia								
Percentage of global production from hydraulic fracturing							39.6	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.	
WATER	2012	2013	2014	2015	2016	2017	2018		GRI
Total water withdrawal by source: m3	996,415	819,523	1,091,587	881,029	758,560	821,247	1,026,299	Vermilion reports the production and re-use of produced water separate from total water withdrawn from other sources, as we use produced water to support continued production; increase in water withdrawal is due to increased drilling activity in Canada, Australia, Hungary and Germany	303-1
Canada			227,323	92,044	30,835	81,511	112,869	Increase in development activity, including 2018 acquisition of Saskatchewan assets	
France			681,734	563,201	478,374	504,083	624,923		
Netherlands			30	0	20,145	29,874	26,526		
Australia			182,500	207,500	207,500	182,500	212,500		
United States			0	18,284	21,706	23,255	46,803		
Germany						23	96		
Central and Eastern Europe - Hungary							1,052	First production in 2018	
Ireland							1,530	Reflects Vermilion's operatorship of November 30, 2018	
Surface water, including wetlands, rivers, lakes, oceans: m3	348,961	313,262	302,053	233,165	223,221	194,589	228,212		303-1
Canada			119,553	25,665	6,659	12,089	15,712	Increase due to acquisition of assets in Saskatchewan in May 2018	
France			0	0	0	0	0		
Netherlands			0	0	0	0	0		
Australia			182,500	207,500	207,500	182,500	212,500	Increase due to drilling activity	

United States			0	0	9,062	-	0		
Germany						0	0		
Central and Eastern Europe - Hungary							0		
Ireland							0	Reflects Vermilion's operatorship of November 30, 2018	
Groundwater: m3	640,854	490,410	755,873	630,537	499,671	591,223	747,120		303-1
Canada			101,401	61,858	23,967	62,369	82,280	Increase due to acquisition of assets in Saskatchewan in May 2018	
France			654,442	550,395	463,152	493,820	617,511		
Netherlands			30	0	30	12,315	526		
Australia			0	0	0	0	0		
United States			0	18,284	12,522	22,718	46,803		
Germany							0		
Central and Eastern Europe - Hungary							0		
Ireland							0	Reflects Vermilion's operatorship of November 30, 2018	
Municipal water supplies or other water utilities: m3	6,600	15,851	33,661	14,455	35,669	17,876	50,932		303-1
Canada			6,369	1,649	210	7,053	14,877	Increase due to acquisition of assets in Saskatchewan in May 2018	
France			27,292	12,806	15,222	10,263	7,412		
Netherlands			0	0	20,115	-	25,964		
Australia			0	0	0	0	0		
United States			0	0	122	537	-		
Germany						23	96		
Central and Eastern Europe - Hungary							1,052	First drilling activity in 2018	
Ireland							1,530	Reflects Vermilion's operatorship of November 30, 2018	
Water sources significantly affected by water withdrawal	0	0	0	0	0	0	0		303-2
Water withdrawn in water stressed or water limited areas	0	0	0	0	0	0	0		303-2
Water recycled and reused = reduction in water use: m3	0	7,400	21,934	2,872	16,016	35,046	23,204	Does not include produced water reused or recycled; see produced water metrics below	303-2
Canada			21,934	2,872	0	0	0		
France			0	0	0	0	0		
Netherlands			0	0	16,016	35,046	23,204		
Australia			0	0	0	0	0		
United States			0	0	0	0	0		
Germany							0		
Central and Eastern Europe - Hungary							0		
Ireland							0	Reflects Vermilion's operatorship of November 30, 2018	
Water recycled and reused: %	0	0.90%	2%	0.3%	2%	4%	2%		303-3
WATER DISCHARGE AND PRODUCED WATER	2012	2013	2014	2015	2016	2017	2018		
Total water discharge by quality and destination, m3	275,299	7,665,326	7,776,122	8,212,284	8,364,747	8,268,675	8,896,405		306-1
Canada			95,661	33,616	104	115	15,365	Increase due to acquisition of assets in Saskatchewan in May 2018	
France			1,596	454	143	116	71		
Netherlands			5,835	3,274	6,830	51,286	58,053		
Australia		7,530,821	7,673,030	8,156,657	8,343,820	8,217,158	8,794,856	Produced water (see below, 33% of total produced water), within operating approvals	
United States			0	18,284	13,850	0	0		
Germany						0	0		
Central and Eastern Europe - Hungary							80		
Ireland							27981	Reflects Vermilion's operatorship of November 30, 2018	
Water bodies significantly affected by discharges of water	0	0	0	0	0	0	0		306-5
Total volume of produced water, m3	1,559,854	1,599,692	23,156,436	24,457,667	24,545,576	25,059,159	42,274,274		21% OG5
Canada		1,599,692	2,040,024	2,524,903	2,305,947	2,359,192	17,720,438	Increase due to acquisition of assets in Saskatchewan in May 2018	
France		Not tracked	13,414,954	13,605,896	13,814,729	13,902,601	15,104,719		
Netherlands		Not tracked	12,736	100,598	16,628	11,128	19,760		
Australia		7,530,821	7,673,030	8,156,657	8,343,820	8,217,158	8,794,856		

United States			15,692	69,612	64,452	66,687	108,315	Increase in production YOY	
Germany						502,393	526,105		
Central and Eastern Europe - Hungary							80	First production in 2018	
Ireland							1.2	Reflects Vermilion's operatorship of November 30, 2018	
Volume and % of produced water by disposal method:									OG5
Reused: % and volume	0	0	0	0	0	0	0		OG5
Recycled: %			0.02%	0.06%	0.04%	0.03%	0.03%		
Recycled - volume: m3	0	0	5,096	15,076	9,519	7,065	12,138		OG5
Canada	0	0	5,096	15,076	0	0	0		
France	0	0	0	0	0	0	0		
Netherlands	0	0	0	0	9,519	7,065	10,874		
Australia	0	0	0	0	0	0	0		
United States			0	0	0	0	0		
Germany						0	1,264		
Central and Eastern Europe - Hungary							0		
Ireland							0	Reflects Vermilion's operatorship of November 30, 2018	
Reinjected: %	100	100	67%	67%	66%	67%	79%		
Reinjected: m3	1,559,854	1,599,692	15,478,310	16,285,934	16,195,170	16,796,476	33,450,294		OG5
Canada	1,559,854	1,599,692	2,040,024	2,524,903	2,308,880	2,338,141	17,727,573	Increase due to acquisition of assets in Saskatchewan in May 2018	
France			13,414,954	13,605,896	13,814,729	13,902,601	15,104,719		
Netherlands			7,640	85,522	7,109	4,062	8,886		
Australia			0	0	0	0	0		
United States			15,692	69,612	64,452	49,279	82,931	Increase in production YOY	
Germany						502,393	526,105		
Central and Eastern Europe - Hungary							80	First production in 2018	
Ireland							0	Reflects Vermilion's operatorship of November 30, 2018	
Hydrocarbon discharged within produced water: tonnes	242	244	113	110	104	115	70		OG5
Canada			0	0	0	0	0		OG6
France			0	0	0	0	0		OG6
Netherlands			0	0	0	0	0		OG6
Australia			113	110	104	115	70	Released within our operating approval volume	OG6
United States			0	0	0	0	0		OG6
Germany						0	0		
Central and Eastern Europe - Hungary							0		
Ireland							0.4	Reflects Vermilion's operatorship of November 30, 2018	
ASSET INTEGRITY AND PROCESS SAFETY	2012	2013	2014	2015	2016	2017	2018		OG13
Number of Tier 1 process safety events	0	0	0	0	0	0	0		OG13
Number of Tier 2 process safety events	13	27	36	78	42	69	96		OG13
Canada			26	54	30	42	71	Increase due to acquisition of assets in Saskatchewan in May 2018	
France			4	12	5	3	5		
Netherlands			4	12	5	13	15		
Australia			2	0	2	6	1		
United States			0	0	0	0	2		
Germany						5	1		
Central and Eastern Europe - Hungary							1		
Ireland							0		
SPILLS	2012	2013	2014	2015	2016	2017	2018		
Total number of all spills	78	137	119	188	145	170	268	No significant spills requiring reporting in financial statements 2012-2017	306-3
Canada				99	81	88	159	Increase due to acquisition of assets in Saskatchewan in May 2018	
France				56	39	47	61		
Netherlands				24	15	18	18		
Australia				6	7	9	10		

United States			0	0	0	0	0		
Germany						0	301		
Central and Eastern Europe - Hungary							0		
Ireland							8	Reflects Vermilion's operatorship of November 30, 2018	
Deep well injection: metric tonne	46,026	3,649	74,323	49,506	21,329	59,376	95,989		306-2
Canada			74,323	31,223	7,479	11,136	15,365	Increase due to acquisition of assets in Saskatchewan in May 2018	
France			0	0	0	0	0		
Netherlands			0	0	0	0	8,462		
Australia			0	0	0	0	0		
United States			0	18,284	13,850	17,554	27,687	Increase in production YOY	
Germany						30,685	44,475		
Central and Eastern Europe - Hungary							0	First production in 2018	
Ireland							0	Reflects Vermilion's operatorship of November 30, 2018	
Landfill: metric tonne	27,721	33,015	34,908	20,137	10,284	25,291	41,397		306-2
Canada			34,860	13,511	6,457	23,242	35,979	Increase due to acquisition of assets in Saskatchewan in May 2018	
France			0	4,573	2,179	1,741	3,151		
Netherlands			0	1,715	1,259	0	0		
Australia			48	338	389	295	499		
United States			0	0	0	14	891		
Germany						0	0		
Central and Eastern Europe - Hungary							877		
Ireland							0	Reflects Vermilion's operatorship of November 30, 2018	
On-site storage: metric tonne	0	0	0	90	0	0	0		306-2
Other – Oilfield Waste Processing: metric tonne	11,855	70,150	4,679	6,081	4,091	15,807	6,637		306-2
Canada			3,451	5,304	3,905	15,569	4,783		
France			280	454	156	238	6		
Netherlands			0	5	30	0	0		
Australia			0	0	0	0	0		
United States			948	318	0	0	0		
Germany						0	0		
Central and Eastern Europe - Hungary							0		
Ireland							1,848	Reflects Vermilion's operatorship of November 30, 2018	
Weight of hazardous waste shipped internationally: metric tonne	0	0	0	0	0	69	90	Hazardous waste transported within and between operations: data is in development	306-4
Canada	0	0	0	0	0	0	0		
France	0	0	0	0	0	0	0		
Netherlands	0	0	0	0	0	69	69		
Australia	0	0	0	0	0	0	0		
United States			0	0	0	0	0		
Germany						0	0		
Central and Eastern Europe - Hungary							0		
Ireland							20	Reflects Vermilion's operatorship of November 30, 2018	
DRILL MUD AND CUTTINGS	2012	2013	2014	2015	2016	2017	2018		
Drill mud & cuttings produced using non-aqueous drilling fluid, onshore disposal to controlled sites: tonne	Limited data	18,844	23,823	9,358	4,950	7,906	14,970		
Canada				8,351	3,746	6,800	14,212	Increase due to acquisition of assets in Saskatchewan in May 2018	
France				0	778	238	758	Shift to aqueous drilling fluids	
Netherlands				689	426	868	0		
Australia				0	0	0	0		
United States				318	0	0	0		
Germany						0	0		
Central and Eastern Europe - Hungary							0		
Ireland							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	
Canada				2,192	611	0	2,182	Increase due to acquisition of assets in Saskatchewan in May 2018
France				0	0	0	0	
Netherlands				0	213	736	0	
Australia				0	0	0	0	
United States				0	0	0	0	
Germany						0	0	
Central and Eastern Europe - Hungary							0	
Ireland							0	
Drill mud & cuttings produced using aqueous drilling fluid, onshore disposal to controlled sites: tonne	Limited data	Limited data	7,563	4,337	6,182	9,164	9,754	
Canada				2,562	2,509	3,302	4,837	Aqueous Drilling Mud Processing, Drilling Waste Gel Chem and Advanced Gel Chem volumes (taken from Landfill invoices)
France				0	2,200	1,741	3,148	
Netherlands				1,775	875	1,787	-	
Australia				0	0	0	0	
United States				0	598	2,334	891	
Germany						0	0.0	
Central and Eastern Europe - Hungary							877	
Ireland							0.0	
Drill mud & cuttings produced using aqueous drilling fluid, disposal at Vermilion controlled location: tonne	New in 2015	New in 2015	New in 2015	444	1,760	0	8,620	Disposal method: onsite/remote pump
Canada				444	1,760	0	6,648	
France				0	0	0	0	
Netherlands				0	0	0	0	
Australia				0	0	0	1,972	
United States				0	0	0	0	
Germany						0	0	
Central and Eastern Europe - Hungary							0.0	
Ireland							0.0	
INVESTMENT IN ENVIRONMENTAL PROTECTION	2012	2013	2014	2015	2016	2017	2018	
Total environmental protection investment: \$CDN	\$39,954,133	\$37,441,842	\$36,956,969	\$25,714,010	\$25,949,339	\$26,884,165	\$44,149,540	
Canada	\$6,528,629	\$6,377,661	\$6,099,464	\$6,008,486	\$8,451,587	\$8,772,085	\$18,136,607	
France	\$10,786,743	\$13,385,250	\$10,907,708	\$4,555,225	\$4,513,376	\$9,152,582	\$10,624,294	
Netherlands	\$8,126,837	\$4,997,494	\$2,815,841	\$3,914,342	\$10,470,866	\$5,190,457	\$7,683,371	
Australia	\$811,924	\$981,437	\$1,177,894	\$614,884	\$1,026,713	\$798,640	\$787,939	
United States			\$0	\$516,060	\$1,486,796	\$2,134,901	\$2,469,513	
Germany						\$835,500	\$850,680	
Central and Eastern Europe - Hungary							\$66,879	
Ireland							\$3,530,258	
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	
Canada	\$899,825	\$1,817,792	\$3,456,493	\$2,467,810	\$1,076,807	\$1,251,000	\$4,087,067	
France	\$1,568,838	\$3,575,837	\$10,258,340	\$3,625,814	\$2,140,827	\$2,882,023	\$3,311,501	
Netherlands	\$879,998	\$577,981	\$1,510,210	\$3,772,342	\$6,680,206	\$1,085,892	\$3,594,031	
Australia	\$89,746	\$98,050	\$580,114	\$177,942	\$186,311	\$317,802	\$380,624	
United States			\$0	\$0	\$1,009,337	\$1,593,295	\$2,094,305	
Germany						\$11,257	\$73,440	

GRI MATERIALITY ANALYSIS – SUSTAINABILITY REPORT APPENDIX

Aspect	Boundary Assessment		Impact on Vermilion	Impact or Concern for Key Stakeholders						
	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

GRI MATERIALITY ANALYSIS – SUSTAINABILITY REPORT APPENDIX

Aspect	Boundary Assessment		Impact on Vermilion	Impact or Concern for Key Stakeholders						
	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

VERMILION ENERGY



VERMILION ENERGY INC.

3500, 520 3rd Avenue SW
Calgary, Alberta T2P 0R3

Phone: 1.403.269.4884
Facsimile: 1.403.476.8100
IR Toll Free: 1.866.895.8101
sustainability@vermillionenergy.com

vermillionenergy.com



Printed on 100% recycled paper.



Vermilion's 2019 Corporate ONE DAY, MANY PARTNERS Day of Caring supported seven charitable organizations.



Brendan Wood International
First Intelligence

