



2022

SUSTAINABILITY REPORT



Lucero

ENERGY CORP.

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CORPORATE OVERVIEW

Lucero Energy Corp. (“Lucero” or the “Company”) is a pure-play North Dakota Bakken / Three Forks producer with an ideal asset platform for targeting high-netback light oil with robust economics. The Company provides exposure to a focused land base within the core of the Bakken / Three Forks that features significant oil development opportunities. Lucero employs a proven and repeatable strategy to generate value with a consistent approach throughout the lifecycle of our assets. While adhering to stringent environmental regulations and high standards of corporate responsibility, we are positioned for disciplined growth, pursuing the acquisition, development and production of high-quality oil and natural gas assets. In 2022, Lucero averaged 10,874 boe/d of production, weighted 81% to oil and liquids.

Lucero is incorporated in Canada with a head office in Calgary, Alberta and offices in Denver, Colorado and Watford City, North Dakota. For further corporate information and background, please visit our website: www.luceroCorp.com/.

2022 ESG Highlights (vs 2021)

64% Decrease in Scope 1 Emissions Intensity

57% Decrease in Methane Emissions Intensity

62% Decrease in Freshwater Use Intensity

Zero TRIF & LTIF in 2022

35% Of Lucero’s team are women or visible minorities



ABOUT THIS REPORT

In early 2022, the Company emerged as Lucero Energy Corp., a re-energized organization with a new face and refreshed culture. While the Company's wholly-owned US operating subsidiary continues as PetroShale (US), Inc., the public and investor-facing entity is Lucero.

Although Lucero remains in the early phases of the Company's sustainability journey, this report serves as our commitment to transparency and accountability to stakeholders. Within this report, the terms sustainability and environmental, social and governance ("ESG") are used interchangeably to improve readability, though we recognize that each can have a distinct meaning depending on context.

Reporting Approach & Scope

This report was informed by referencing the Sustainability Accounting Standards Board ("SASB") standard for the Oil and Gas – Exploration and Production industry, the Global Reporting Initiative's ("GRI") GRI 11: Oil & Gas Sector 2021 and the United Nations' Sustainable Development Goals ("SDGs") as the guiding principles for data collection and strategy development. SASB and GRI reporting data may be found in the Performance Summary (2020 – 2022) while Lucero's priority SDGs are referenced in concert with the related reporting topics. For reporting on 2023 and beyond, Lucero anticipates aligning our ESG disclosure with the recommendations of the Task Force on Climate-Related Financial Disclosures ("TCFD").

The data published in this report was calculated via industry standards and methodologies, in cases where industry standards were not used the appropriate methodology is provided within the data. The narrative descriptions and consolidated data presented in the report pertains to all operations that are owned and operated by Lucero/ PetroShale (US), Inc. Data disclosed in the report represents the fiscal years ended December 31, 2020 through December 31, 2022.

In addition to engaging investors, this report is also directed to other interested stakeholder groups such as employees, local communities, non-governmental organizations, regulators and others that are interested in monitoring the ESG principles and material topics of importance to Lucero. Additional mechanisms are in place to report on sustainability performance and to engage with particular stakeholders on matters that are of specific interest to them.

MATERIAL TOPICS

Within this report, readers are provided information on Lucero’s performance in relation to key sustainability matters and those material topics that are of primary importance to the Company and our stakeholders. In determining the matters to be reported on, we considered disclosure commitments made by Lucero, legal reporting requirements as well as the potential for any given ESG topic to introduce risk to our business which could ultimately impact our financial or operational performance.

We believe the industry-specific assessment completed by SASB provides a good representation of the material issues facing oil and gas organizations of our size, operational profile and footprint, and as such, Lucero’s assessment of material topics is also guided by this SASB standard. To a large extent, the topics identified by SASB and through Lucero’s higher level risk assessments represent structural risks that are inherent in the execution of strategy and, for this reason, the list of material issues requiring disclosure in our sustainability reporting is not expected to change significantly from year to year. The specific exposures that these topics represent at a site or asset level are, however, often more dynamic. To the extent relevant for Lucero’s financial and operational performance, the Company strives to risk-assess and incorporate impacts resulting from long-term structural shifts as well as those relating to local and dynamic risk exposures.

Lucero’s Material Topics



LETTER TO STAKEHOLDERS

Since early 2022, Lucero has experienced a period of transition and evolution, while continuing to uphold the core principles of the Company and remain focused on strategic execution. The Lucero team brings a longstanding commitment to best practices related to ESG topics and remains sharply focused on responsible energy production that is achieved through safe and environmentally sound operations; crucial elements to support long-term success and sustainability.

This inaugural ESG report outlines our sustainability efforts, profiles our team's integrity and high-quality assets, and provides a roadmap articulating how the Company will continue to operate responsibly along Lucero's ongoing sustainability journey. This journey includes all pillars of ESG, including seeking to enhance board diversity to complement management's existing gender and ethnic diversity; continuing to uphold strong social tenets and take care of our people; and maintaining sound corporate governance practices with appropriate oversight. It will also include a continued expansion and enhancement of ESG reporting to include more focused climate-related risks and opportunities as guided by TCFD.

The team at Lucero aims to prioritize activities or initiatives that can meaningfully reduce our GHG emissions over time. I am very proud to report that in 2022, the Company successfully decreased our Scope 1 emissions by 57% compared to the previous year, as well as reducing emissions intensity by 64% year-over-year. These reductions primarily stem from Lucero's lower flared volumes as a result of our ability to capture and produce the value of natural gas that would otherwise be flared, which enhances both our financial sustainability and environmental performance. The Company's performance was very strong across numerous environmental, social and governance metrics, which are highlighted and discussed later in this report.

As part of the Company's corporate rebrand, Lucero has established an energized and refreshed culture, with a motivated team who are driven to improve the Company's financial and operating metrics. These accomplishments, combined with Lucero's top-tier land base in the core of the North Dakota Bakken, have positioned the Company exceptionally well to support sustainable production and reserves growth while remaining an ethical, responsible contributor to meeting the world's energy needs. In addition to Lucero's commitment to being a good corporate citizen, the Company is also heavily focused on ensuring long-term economic sustainability and capital returns to shareholders over time.

LETTER TO STAKEHOLDERS, CONT'D

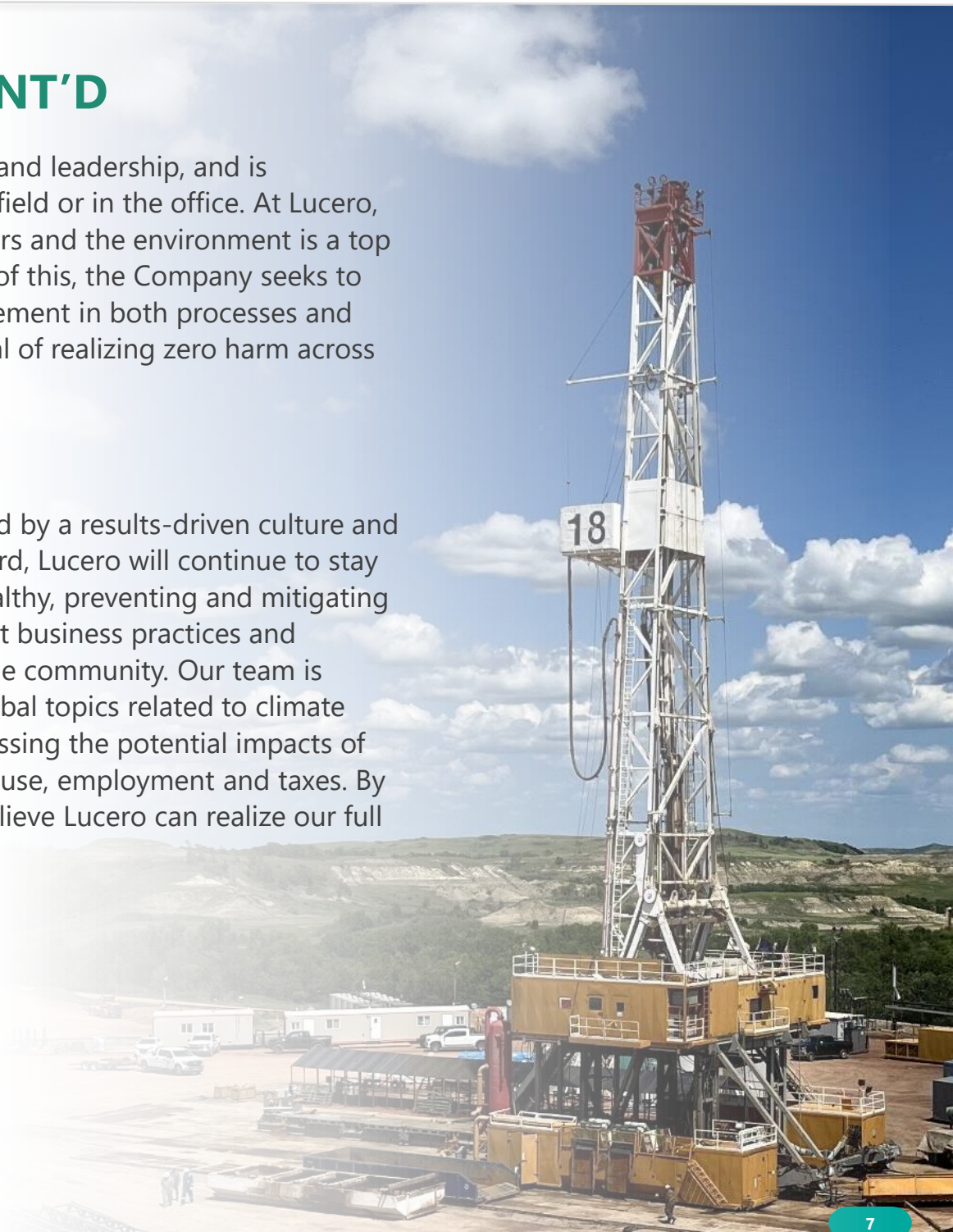
Oversight of our ESG program starts with Lucero's Board and leadership, and is embodied throughout the organization – whether in the field or in the office. At Lucero, the health, safety and protection of employees, contractors and the environment is a top priority that is approached without compromise. As part of this, the Company seeks to foster an environment that promotes continuous improvement in both processes and day-to-day behaviors that can ultimately support the goal of realizing zero harm across all of our operations.

Sustainability Outlook

The Company is strongly positioned for the future, backed by a results-driven culture and commitment to continuous improvement. Looking forward, Lucero will continue to stay focused on core priorities of keeping people safe and healthy, preventing and mitigating environmental impacts, upholding ethical and transparent business practices and maintaining a welcome social license to operate within the community. Our team is committed to staying informed on local, national and global topics related to climate change, human rights and Indigenous relations, and assessing the potential impacts of our corporate decision-making on emissions, water, land use, employment and taxes. By integrating these factors into a cohesive approach, we believe Lucero can realize our full potential for the benefit of all stakeholders.



Brett Herman
President & CEO



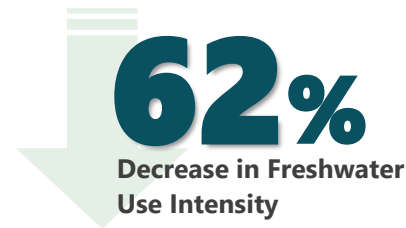
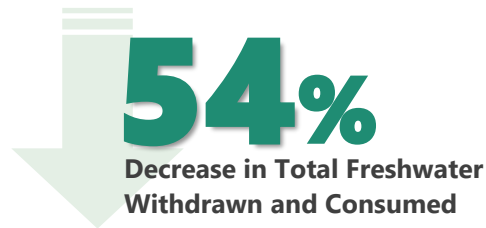
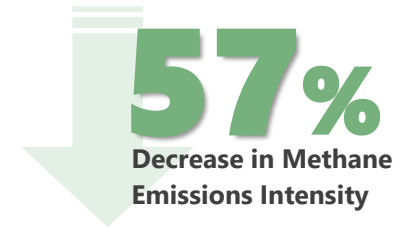
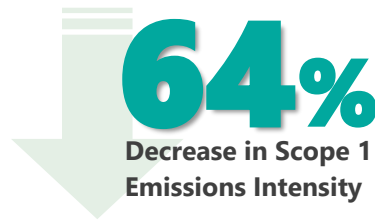
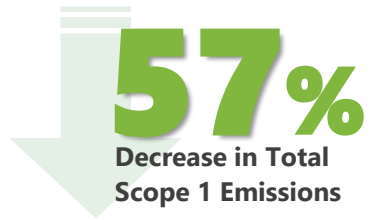


ENVIRONMENTAL STEWARDSHIP

Lucero operates in the U.S., a jurisdiction in which the development and production of oil and natural gas resources are closely monitored by regulatory agencies. The environmental standards in North America are among the most stringent in the world, and we take pride in operating within a region that promotes responsible development and holds companies accountable.

YEAR-OVER-YEAR PERFORMANCE ACHIEVEMENTS

As part of our commitment to sustainability, we seek to continually enhance our environmental performance along with the associated internal and external reporting. Lucero’s team strives for continuous improvement and aims to collaborate with industry partners, environmental specialists, and government bodies to help us achieve this goal.



“Lucero recognizes the importance of minimizing our footprint and have integrated our environmental strategy throughout the organization.”

EMISSIONS MANAGEMENT



The Company is committed to reducing emissions and meeting or exceeding federal and state compliance targets. As a North Dakota operator, we are subject to numerous federal and state air emission regulatory and reporting requirements, along with leak detection and repair (“LDAR”) monitoring and reporting. In 2022, all annual inspections and reports were submitted on time and no violations were administered by regulators.

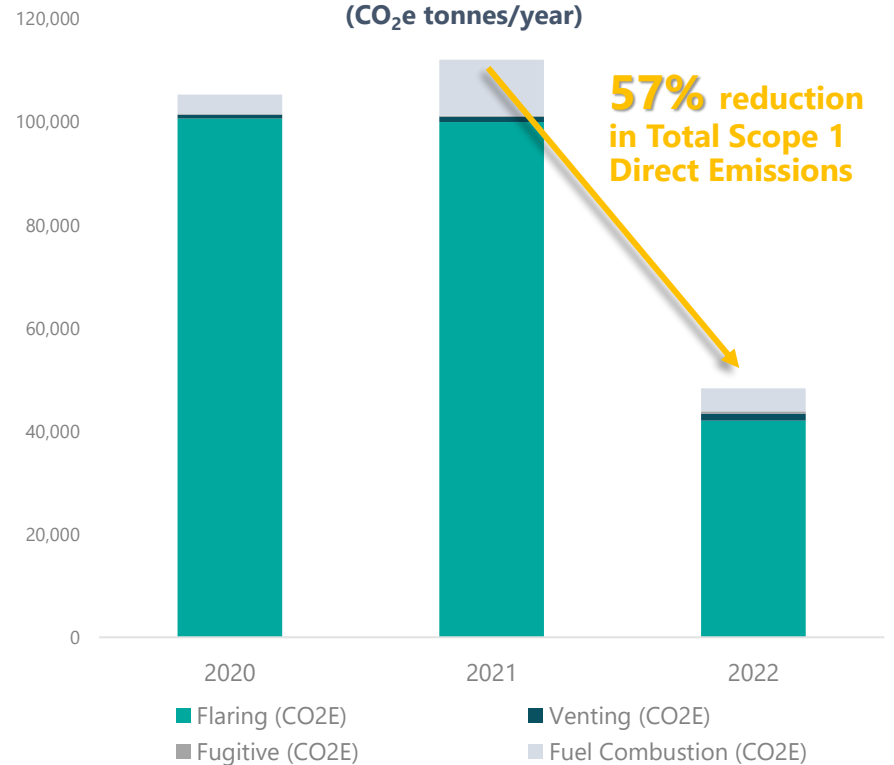
Lucero’s GHG and methane intensity goals and targets are focused on our Scope 1 and 2 emissions, representing those emissions over which Lucero can exert full or partial control.

Greenhouse Gas Emissions

Lucero’s Scope 1 emissions reflect direct greenhouse gas (“GHG”) emissions stemming from owned and/or controlled production of our oil and gas assets. These emissions are categorized into four segments for reporting purposes: flaring of produced gas, venting of produced gas, stationary fuel consumption using propane or diesel, and fugitive emissions arising from unintended leaks at our operations. We constantly prioritize activities or initiatives that can lead to reductions of GHG emissions over time.

In 2022, Lucero increased our gross operated oil and natural gas production by 19% and 26%, respectively, while also successfully decreasing total Scope 1 emissions by 57% over 2021. This decline is primarily due to a 70% reduction in operated flared volumes due to the connection and conservation of natural gas production at Lucero’s Explorer facility, benefitting both existing wells and new wells completed at this facility in 2022. We also reduced our diesel and propane consumption stemming from the electrification of certain facilities.

Total GHG Scope 1 Direct Emissions
(CO₂e tonnes/year)

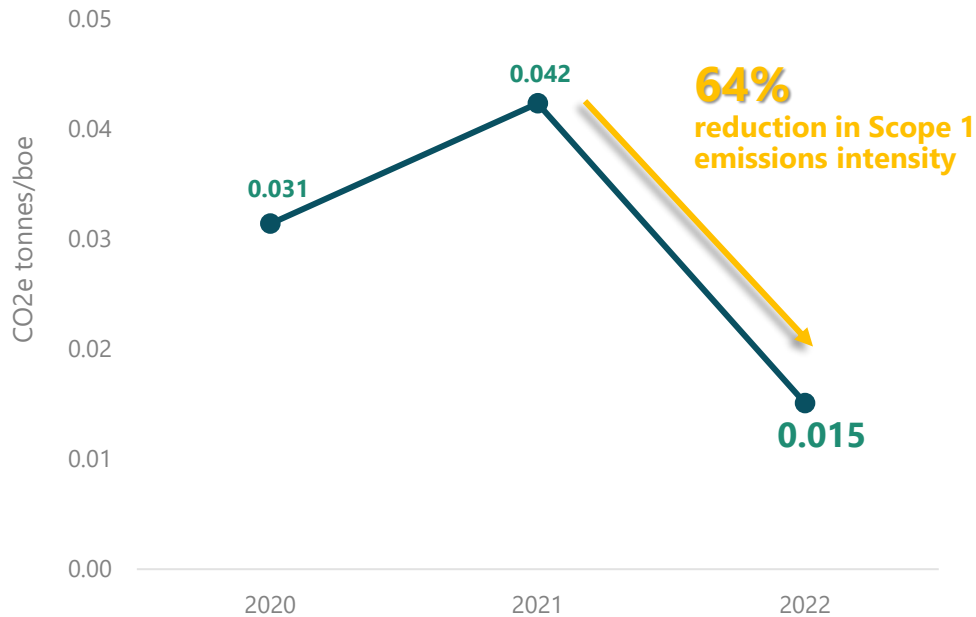


Greenhouse Gas Emissions, Cont'd

Furthermore, Lucero successfully conserved and sold 94% of pipeline-connected gas production, up from 79% in 2021, as a result of fewer downstream third-party disruptions.

Scope 1 GHG Emissions Intensity, which takes into account operated production levels to provide a more meaningful commitment to sustainability, decreased 64% in 2022 compared to the previous year. Venting and fugitive emissions represent only 4% of our total Scope 1 emissions, notwithstanding the commissioning of a new facility at our Explorer development project.

Scope 1 GHG Emissions Intensity
(CO₂e tonnes/boe)



ESG in Action:

Implementing New Technologies & Innovative Approaches to Reduce Emissions

Lucero has designed each newly constructed facility with electric and mechanical controllers and pumps, which eliminates venting from pneumatic devices traditionally used at these locations. In addition, Lucero is evaluating options to replace existing intermittent bleed controllers in order to promote continuous operational improvement.

Currently, we operate 28 intermittent bleed pneumatic controllers that are located on our older sites, which in aggregate emit the equivalent of ~1,280 tons of CO₂, representing slightly over 2.5% of Lucero's total Scope 1 emissions.

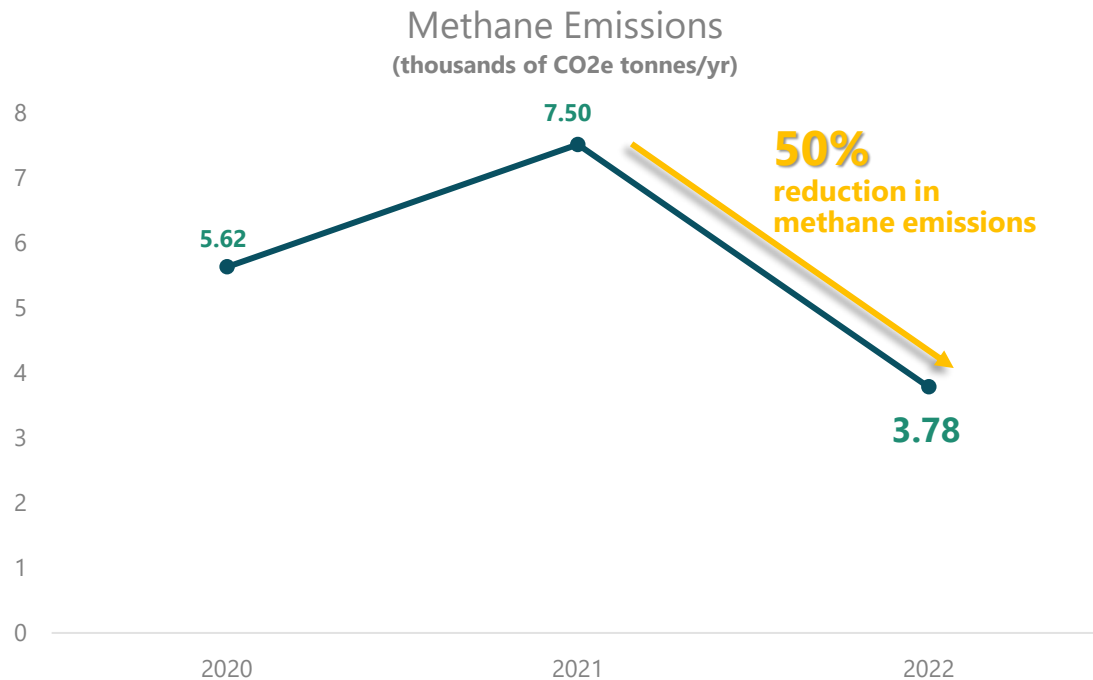


Methane

In the oil and gas industry, methane emissions are largely attributable to direct venting of production tanks. To aid in the removal and recovery of unwanted emissions, Lucero continues to explore new technologies, such as advanced Vapor Recovery Units ("VRUs"), which reduce both flaring and methane emissions.

In 2022, Lucero's total methane emissions from all sources represented less than 8% of our total Scope 1 emissions, owing to the Company's commitment to gather all methane vapor sources where feasible, and conserve it via third party infrastructure where available.

Incremental technologies and opportunities to reduce methane emissions include the use of blowers on low pressure flares to maintain methane destruction efficiencies greater than 98% to aid in the reduction of unwanted emissions.



57%
Reduction in **Methane Emissions Intensity** in 2022 vs 2021

>98%
Methane destruction efficiency by using blowers on low pressure flares

Fuel Combustion

Of Lucero's total Scope 1 emissions, approximately 10% stem from diesel and propane fuel combustion primarily for the purpose of temporary power generation. With the permanent electrification of our Helen and Thundercloud sites in the first quarter of 2022, our diesel and propane use was significantly reduced. This resulted in overall diesel and propane consumption declines of 49% and 79%, respectively, over 2021 levels.

We are committed to reducing fuel consumption and electrifying our processes wherever possible to reduce direct Scope 1 emissions, and plans have been developed with power providers to electrify all remaining unconnected sites by year end 2023.

Scope 1 emissions related to stationary fuel consumption decreased 59% over the same period in 2021, driving a net reduction in our emissions related to the generation of electricity. As sites continue to be electrified by the grid in 2023, we expect a net reduction in total emissions resulting from reduced fuel consumption, notwithstanding a commensurate rise in Scope 2 emissions.

10% reduction in total CO₂e emissions due directly to grid electrification in 2022 vs 2021

WATER MANAGEMENT



While Lucero operates primarily in low-risk watersheds, we recognize the environmental and economic importance of responsible water management, including the reduction and reuse of freshwater in operations. Opportunities for reducing freshwater use have been identified through hydraulic fracturing optimization and through the use of alternatives to freshwater in the completion of wells.

Lucero’s current freshwater consumption is largely influenced by our drilling and completions operations and is highly dependent on the number of wells drilled and/or completed through the period. While Lucero continues to explore potential opportunities to replace freshwater with produced or recycled water for completion activities, viable options do not always emerge. All consumed freshwater is sourced locally, while all flowback and produced water is sent to third-party water injection wells operated by approved third-party water disposal partners. No water, fresh or produced, is discharged back into the environment by Lucero.

All water withdrawn for Lucero’s operations in 2022 was sourced from areas of low risk according to the World Resources Institute’s Water Risk Atlas (the “Aqueduct”). Lucero’s 2022 water withdrawal was for the drilling of five and completion of three wells in McKenzie County in North Dakota. A total of 68,235m³ (429,183 bbls) of freshwater was withdrawn and consumed in 2022, equating to an intensity of 0.021 m³/BOE (0.134 bbls/BOE).

Freshwater consumption was 54% lower in 2022 than 2021, primarily attributable to a reduction in well completions year-over-year from seven wells in 2021 to three wells in 2022. With a planned seven net wells scheduled for completion by year end 2023, the Company anticipates an increase in 2023 freshwater consumption.

0 m³ discharged
Back to environment from Lucero sites in 2022

54%
Decrease in freshwater consumption in 2022 vs 2021

Water Risks

For the past decade, water scarcity has consistently ranked as one of the most impactful risks globally with potentially devastating effects on human health and economic activity. For Lucero, a decline in the available quality and quantity of freshwater could affect our business through supply restrictions, increased water withdrawal costs, greater investments required for water treatment technologies and/or reduced production volumes. Given the importance of water to local communities and other stakeholders, responsible management of scarce water resources is also key to maintaining our social license to operate.

Based on the Aqueduct, North Dakota currently has an overall water stress ranking as low, and under IPCC Scenarios (which range from optimistic, business as usual and pessimistic) North Dakota is projected to see little change in water stress levels under the optimistic and business as usual projected scenarios, with a potential 40% decline in available water under the pessimistic scenario out until 2040.

Water Quality



Protecting the quality of ground derived drinking water around our operating areas is of critical importance to Lucero. Without proper operating procedures, drinking water quality can potentially be affected by upstream oil and gas production through spills, discharging water with elevated chemical parameters or through below surface contamination between freshwater aquifers with non-fresh or hydrocarbon bearing zones.

Lucero's production and reserves are at depths well below any fresh drinking water zone, and when a well is completed using hydraulic fracturing, it is designed to have multiple barriers to freshwater zones to ensure there is no contamination. If present, domestic and livestock wells located in proximity of planned drilling operations are tested before and after the operation to ensure water quality has not been negatively impacted compared to baseline.

LIABILITY MANAGEMENT

At Lucero, liability management means we take it upon ourselves to design and manage every aspect of our business so as to leave our stakeholders and shareholders enriched and without liability at the end of our journey. From initial project scoping to eventual abandonment and site restoration, we strive to minimize our impact while remaining prepared to respond quickly and effectively when problems do arise.

Land & Biodiversity Protection



North America is home to many species that are classified as threatened or endangered as well as numerous International Union for Conservation of Nature (“IUCN”) protected areas. There are very few IUCN protected areas (wildlife, bird sanctuaries, special areas etc.) in and around Lucero’s operations, however, wildlife and cultural surveys are routinely completed in the planning stages to ensure the detection and protection of any rare, endangered, or culturally sensitive species or areas. If identified, Lucero works with local Indigenous groups and other stakeholders to revise our operations plans in order to ensure activities have little to no impact on the identified areas or species.

None of Lucero’s proved or probable reserves are situated on restricted lands or lands designated as prohibited for resource development.

Within our operating areas of North Dakota, Lucero has no proved or probable reserves on lands that are prohibitive of resource development. Project planning on our land base begins with stakeholder consultation and collaboration, which then transitions to extensive surveying, and concludes with all regulatory permitting practices. In the execution of our drilling and development programs, we adhere to obligations and considerations that were agreed to during the planning and consultation process, including any special timing restrictions or construction practices.

Spill Prevention & Response

Lucero recognizes that spill prevention and containment is the best practice for minimizing the environmental impact of any potential release. As such, all existing and new facilities are incorporated within our spill control and countermeasures plan (“SPCC”), with every facility having spill impact mitigation features incorporated into their design to contain and minimize the impact to the surrounding environment. These features include berms constructed around the perimeter of our lease areas and interior berms surrounding tank storage and facilities. The majority of on-lease piping is above ground on pipe racks, enabling easy access for inspection and leak detection.

Our field personnel are trained annually in our SPCC plan and conduct routine inspections, maintain our production and storage facilities and are quick to respond to minimize impacts. All spills are investigated, tracked and reviewed to continuously improve operations, regardless of volume. A team of professional third-party environmental consultants

engaged by Lucero help to ensure any impacted areas are fully restored to all regulatory standards and the lands returned to the previous state.

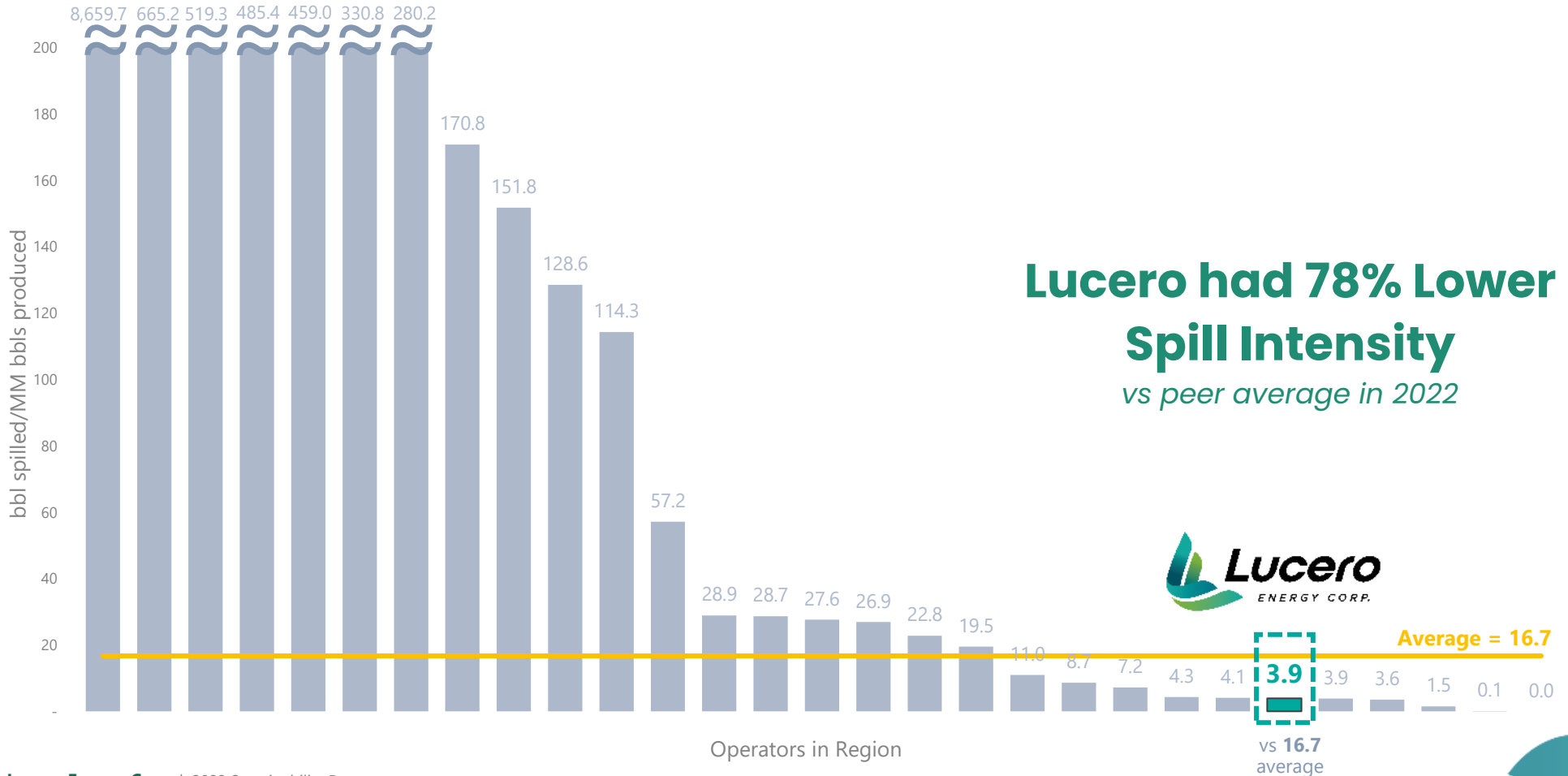
In the latter half of 2022, Lucero experienced two reportable spills on private land totaling 15 barrels in volume, with no impact to state waters, sensitive areas or reserve lands. Our field operators responded immediately according to the SPCC plan, implementing containment and recovery procedures to protect the environment.

Both incidents have been thoroughly investigated, and discussed at weekly operations meetings, with recommendations made to prevent similar incidents through corrective actions. In each case, the immediate response and complete cleanup were well received by both the landowner and the responsible regulatory body, resulting in no lasting liability or environmental impact.

Spill Prevention & Response, Cont'd

Lucero recorded a 2022 spill intensity of **3.9** barrels per million barrels of fluid produced, compared to an average intensity of 16.7 among 29 peers operating in both McKenzie & Dunn counties. From a spill intensity perspective, Lucero is in the top-quartile relative to our peers in this localized area, notwithstanding the minor incidents the Company experienced in 2022.

Spill Intensity of McKenzie & Dunn County Operators (bbls spilled / million bbls produced)



Abandonment & Reclamation

Lucero's abandonment and reclamation obligations ("ARO") relate primarily to remediation obligations arising from the Company's ownership interests in petroleum and natural gas assets. We are committed to acting responsibly, and retiring inactive wells and facilities in a timely manner after they have reached the end of their economic life. Currently Lucero has no sites under reclamation and only one inactive site is scheduled for abandonment in 2023.

During 2022, the Company's ARO model was reviewed and compared to similar industry models, including recent work done in North Dakota under the federally funded Coronavirus Aid, Relief and Economic Security ("CARES") program as well as the Alberta and Saskatchewan Liability programs. Based on our net working interest in wells and related facilities, approximately CAD\$6 million (NPV) of decommission liabilities exist representing the cost to plug and abandon wells and return these sites to their original condition once they've reached their economic life. This obligation is equivalent to approximately 1% of the value of our property, plant and equipment ("PP&E") as at December 31, 2022.

Lucero is proud of the comprehensive approach we take to managing asset integrity, which ensures continued protection of the land and biodiversity within, or near to, our operating areas.

SOCIAL RESPONSIBILITY

At Lucero, creating a safe, engaging, and rewarding workplace for our team is a top priority. In support of this, we have established a corporate culture that underpins our core business values and is designed to drive continued success.

HEALTH & SAFETY

Lucero maintains a strong commitment to conducting all of our activities in a manner that protects the health and safety of our employees, contractors, the public and the environment. We believe that every work-related incident or injury is preventable, and we empower our team to strive for zero incidents and zero harm to people and the environment.

This vision of zero is supported by a comprehensive health and safety strategy that is categorized into six core areas: employee engagement; preventative maintenance; incident investigation and corrective actions; a health and safety management system; worker training and competency; and meeting or exceeding compliance with all applicable regulations.

Lucero’s health and safety program is designed to deliver a secure and safe working atmosphere, while also providing continuous improvement and policy evolution which align with the broader changes in the workplace and society. The program also seeks to improve operational processes by standardizing procedures, reducing downtime, and ensuring a rapid and thorough response guided by our Emergency Response Plan (“ERP”) should an incident ever occur.

Health & Safety Goals

1 Target Zero Incidents

through continued focus on preventative risk management and hazard identification

2 Enhance Internal Compliance & Auditing

seek to further improve risk management systems and to record and track internal audits

3 Conduct At Least Two ERP Tabletop Exercises Each Year

continue learning and streamlining responses to incidents including conducting at least one exercise for a catastrophic incident



Safety Performance: Lagging Indicator

As an annual benchmarking exercise, Lucero compares our trailing safety indicators to a group of our industry peers. Historically, we have remained well below average on both lost time incidents frequency (“LTIF”) and total recordable incidents frequency (“TRIF”). In 2022, we achieved our goal of zero incidents with zero recorded TRIF and LTIF across employees and contractors. This was a significant achievement given Lucero had realized a 33% increase in working person hours compared to 2021. While these yearly statistics are not always indicative of the success or failure of a program, Lucero strives for continuous improvements in our preventative measures to ensure zero incidents remains a steady state for years to come.

*“We are very proud to record **ZERO** injuries in 2022, our second consecutive year with **ZERO** TRIF and **ZERO** LTIF, across all employees and contractors.*

0 TRIF & LTIF

All of the Company’s field staff and contractors are trained in incident management, public safety and spill response and are required to update training annually. Management and office staff are trained in ERP and crisis management as necessary to their roles and regularly participate in emergency response exercises. In August of 2022, Lucero completed a corporate and a field tabletop exercise, with another corporate-wide tabletop exercise undertaken in October. All exercises leveraged the expertise of a professional third-party emergency response provider and were conducted seamlessly with learnings recorded and ERP protocols adjusted where necessary.

Incidents that have required the activation of our ERP have included events such as lightning strikes at facilities; grass fires; major snowstorms and third-party power outages which impacted production operations. In each case, our ERP was activated to ensure the safety of everyone involved, the protection of the environment, and the effective management of the incident. Each time our ERP is tested in either simulated or real scenarios, learnings and changes in protocols are made and communicated to continuously improve our response capabilities.

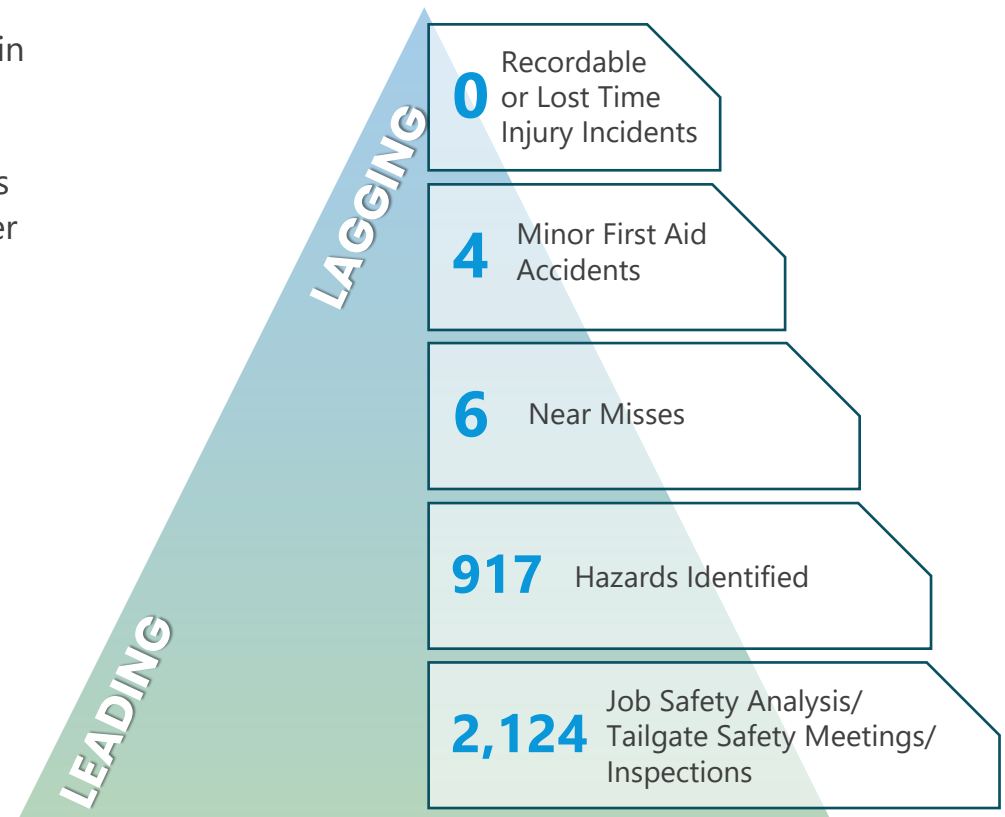
Incident & Fatality Prevention / Hazard Identification: Leading Indicators

Ensuring robust measures are in place to mitigate against incidents and identify potential hazards is crucial to our risk management program and is critical to preventing a loss of life or serious injury. Lucero’s fatality prevention program focuses on eliminating and/or reducing the risk of critical hazards associated with drilling, completions and production operations.

Under our health and safety program, critical hazards receive particular attention through operating standards, audits, self-assessments, inspection programs, and hazard reporting. The overarching purpose of these efforts is to identify potential hazards and then target controls that must be in place to manage risks and improve the effectiveness of the associated controls.

Every incident is thoroughly investigated, with findings and learnings shared throughout the Company via safety alerts, safety meetings and presentations in weekly management meetings to minimize recurrence. Lucero also holds monthly safety meetings in the field, featuring participation by members of our senior management team, enhancing the accessibility of management and their engagement with field operations. In addition, incidents are reported to the Board on a quarterly basis as part of a broader ESG performance summary.

Hazard Identification & Safety-Related Occurrences in 2022



Potentially serious incidents within Lucero are primarily related to one or more of:

Slips and falls



Improper body position



Complacency/failure to follow procedures



OUR PEOPLE & CULTURE

Within each of our offices, Lucero’s team is comprised of diverse and well-rounded individuals with representation by women and visible minorities, including at the executive leadership level. We prioritize accountability, inclusivity, safety, continuous improvement and stakeholder engagement, consistently aiming to make a positive impact on the communities where we work, operate and live. Our entrepreneurial culture encourages innovation, collaboration, engagement and transparency, allowing staff to strive for excellence while creating an exciting, supportive and dynamic workplace.

14%

Women on Lucero’s executive leadership team

35%

Of our team are women or visible minorities

22%

Of Lucero’s managers are women

\$57.5 MM

Total tax contributions by Lucero in 2022

\$90 MM⁺

Contributed to local economics by engaging & supporting local businesses & suppliers

“Lucero’s team is comprised of diverse and well-rounded individuals with representation by women and visible minorities, including at the executive leadership level.”

Diversity & Inclusion



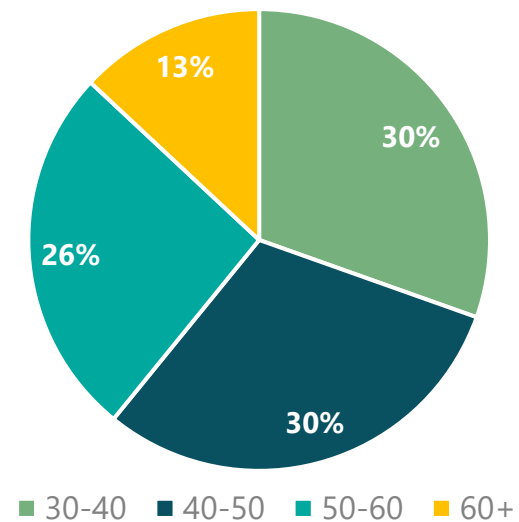
When we are recruiting new members to join the Lucero team, we consider a broad group of individuals who can bring the skills, knowledge, experience, and character required to provide the leadership or other contributions needed to achieve our business objectives. We recognize the beneficial impact of diversity in order to achieve a high level of performance.

While a relatively small organization, Lucero’s 23 full-time employees are quite diverse. Overall, 35% of our team are women or a visible minority, and 14% of our senior executive are women. We are proud to have 22% of the team represented by women, 13% by visible minorities and 22% of our management positions held by women.

A key component of our corporate philosophy is to support a diverse workplace where we accept, encourage, and value the different perspectives brought each day by our staff. These diversities include race, ethnic background, gender, sexual orientation, disabilities, religion, personalities, work experience and education, all of which promote innovation, business results, equality, and fair representation. Lucero’s corporate and employee policies cultivate lawfulness, accountability, fairness and equality, safe accessibility to escalate concerning issues, and a commitment to thorough investigation and corrective action if required.

On an ongoing basis, our leadership team meets with all staff in person to share and receive valuable feedback, and to assess employee levels of engagement and connection with our Company goals, values, and culture. We seek to learn more about their accomplishments and challenges; views on collaboration, communication and responsiveness. We also review individual goals for career development and offer feedback or recommendations regarding how individuals can continue improving personally and corporately.

Lucero Employee Age Range Provides Diversity of Thought, Experience & Perspectives



Supporting Employee Health & Well-Being



Lucero recognizes that people are the Company's greatest asset, and we consciously strive to ensure appropriate care is taken for the health and well-being of our employees. We offer a comprehensive health benefits package that includes support for physical, emotional and mental health matters, and host team-building social events to build internal engagement and camaraderie.

Our monthly safety meetings, at which senior management is present, afford additional opportunities for employees stationed outside of head office to engage with management, while also giving and receiving valuable feedback. Our relatively flat organizational structure allows for equal representation and open communication, demonstrating Lucero's commitment to the health, well-being and overall happiness of our employees.

A Values-Based Culture

We work to promote a non-discriminatory, fair and equitable working culture that is founded on the principles and values embodied in the Lucero way

A Safe & Healthy Work Environment

We are committed to creating a workplace where everyone goes home safe and healthy every day

Training & Development Opportunities

We offer a range of programs supporting continued learning and development of our people

Performance Recognition & Reward

We provide competitive compensation and recognize employees who make outstanding contributions to the success of our Company

Education & Training

Lucero recognizes the significance of professional growth and provides support through employee training and development opportunities. Employees are encouraged to enhance their skills and experience, leading to personal growth and advancement within the organization. The Company reimburses employees for completing training courses and supports participation in various development activities such as seminars, speaker luncheons, courses, webinars, and online training modules. We truly believe that providing opportunities for employees to showcase their leadership skills and individual contributions to Lucero's success is the key to their growth, development and evolution.

SECURITY, HUMAN RIGHTS & RIGHTS OF INDIGENOUS PEOPLES

Lucero's operations and producing assets are located within Dunn & McKenzie counties of North Dakota, meaning we operate in a stable jurisdiction with low political risk and no identified risk of armed conflicts or security-related human rights concerns. As such, our proved and probable reserves are not located in or near areas of conflict. Notwithstanding, the protection of people is a core consideration for Lucero and we are committed to respecting fundamental human rights wherever we operate and work.

Through the application of Lucero's Code of Business Conduct and Ethics Charter, we are able to ensure that human rights are considered in key business processes such as risk assessments, procurement and contractor management, as well as in our dealings with employees, consultants, communities and other stakeholders. The Company also doesn't stop at just internal dealings; we recognize that respecting human rights requires us to work with external contractors and suppliers to ensure that they hold themselves to the same high standards as Lucero. Since inception of the Company, we have received zero reports of human rights breaches.

~76%
Of our oil & gas reserves are booked on MHA Nation land

\$7.6 MM
Allocated to Indigenous-led contractors hired through MHA TERO

Indigenous Relations & Engagement

Fostering positive Indigenous relations with regular engagement is a critical component of Lucero's operations planning. We seek to build respectful relationships with the Mandan, Hidatsa and Arikara Nation (the "MHA Nation"), also known as the Three Affiliated Tribes, located on the Fort Berthold Indian Reservation in central North Dakota, which is also where a large proportion of Lucero's assets are located. Approximately 62% of our proved and 76% of our proved + probable operated oil and gas reserves are booked within the reservation boundaries of the MHA Nation. Lucero also has agreements in place to ensure Indigenous employment and other economic opportunities.

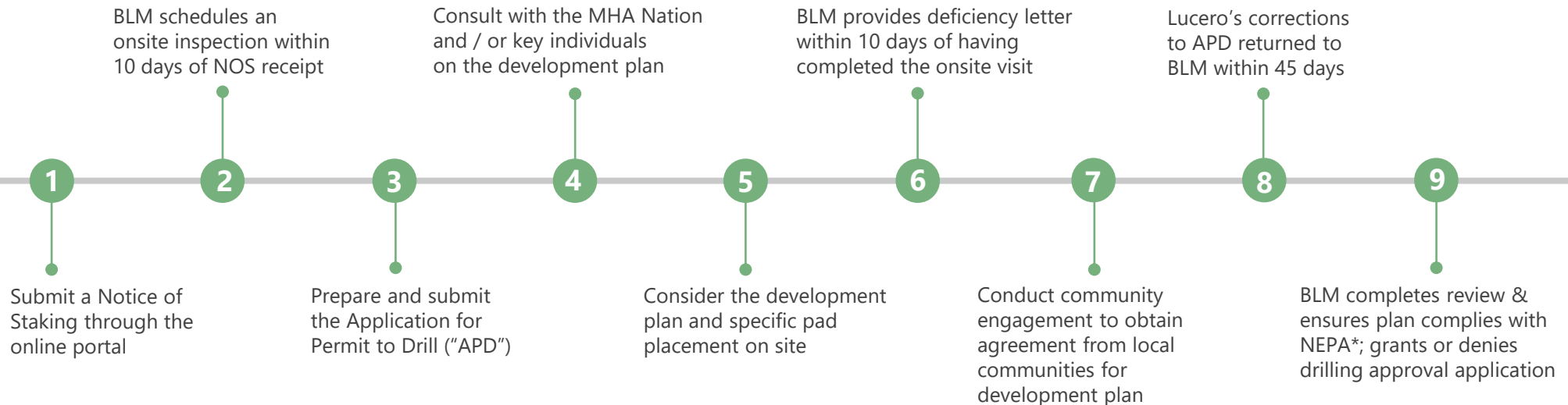
Through the use of a vendor management system that is designated as an MHA Nation Tribal Employment Rights Office ("TERO") system by local tribes, the Company has access to excellent Indigenous contractor organizations who can provide significant value through the lifecycle of Lucero's operations. In 2022, \$7.6 million was allocated to Indigenous-led contractors (Tier 1) who had been hired through MHA TERO.

ENGAGING WITH OUR COMMUNITIES

Maintaining the trust and ongoing support of local communities where we operate is paramount to the success and viability of our business, and it also provides the Lucero team a sense of belonging and kinship with our communities. The social license to operate is intrinsically linked to the manner in which we engage with our communities and our ability to limit or mitigate environmental and social impacts that may be an unwelcome by-product of our operations.

Lucero is committed to being a welcome and valued member of these communities. To achieve this, we actively engage with local communities that have an interest in, or may be impacted by, our operations. The understanding of community expectations gained from these engagement activities are incorporated in everyday decision making and operational activities. All Lucero operations have protocols in place to address community feedback, whether positive or negative. From 2020 through 2022, no community disputes were experienced, and we have not been subject to operational delays or disruptions as a result of non-technical factors.

Extensive engagement is also required for Lucero or our operating partners to conduct drilling, completions, workover, optimization or tie-in activities. For example, in order for Lucero to drill a well on land regulated by the Bureau of Land Management ("BLM") or Bureau of Indian Affairs ("BIA"), an extensive review and engagement process is required, as outlined below:



**National Environmental Policy Act*

Economic Contributions

As an active operator in North Dakota, Lucero contributes to the financial position of governments and landowners through ongoing taxation payments.

Lucero’s 2022 Extraction and Production tax totaled \$27 million in 2022, while our royalty payments through the year to landowners in 2022 alone were \$63.4 million, 53% of which was allocated to private landowners, 27% to the US Federal Government and 20% to the Fort Berthold Indian Reservation. The Company also contributed to communities by frequenting local businesses, such as restaurants, hotels and retail stores, where sales taxes provided further funding for the State. Our total estimated royalty and tax payments in 2022 exceeded \$90 million.

> \$90 MM Estimated Lucero royalty and tax payments in 2022

North Dakota Oil Extraction and Production Taxes Represent*:

~51%
Of all taxes collected by N. Dakota

> \$26 Bn
In tax revenue for N. Dakota 2008-2022

And since 2008, have provided:

\$1.4 Bn
For water projects

\$1.8 Bn
For education

\$5.9 Bn
Funding for communities & infrastructure

\$6.9 Bn
Deposit into Legacy Fund for N. Dakota’s future

*Oil and Gas Tax Study published by the Western Dakota Energy Association and the North Dakota Petroleum Foundation

Giving Back

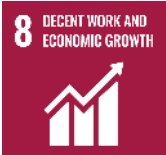
Lucero believes in supporting the communities where we live, work, and operate in Alberta, North Dakota and Colorado. We recognize that giving back through financial support and volunteerism is central to create lasting change, establish strong ties within the community and achieve long-term corporate results. In 2023, Lucero anticipates launching a formal donations budget that is intended to enhance and streamline the financial assistance we provide to charities that are aligned with our values and goals, with specific focus on supporting youth and education, health and wellness, and general community enrichment opportunities. Further, we encourage employees who are donating or giving back to share their experience with Lucero and in certain circumstances, the Company may match those employee donations.



CORPORATE GOVERNANCE

Lucero's Board of Directors has accountability to ensure the Company's business activities are executed safely and responsibly, and that we deliver on internally-established sustainability goals. Through a robust governance structure, we continuously monitor Lucero's corporate and ESG performance to ensure the proper level of oversight, internal controls and risk management systems are in place to protect the Company and all of our stakeholders.

UPHOLDING A STRONG CULTURE OF ETHICS & INTEGRITY



Lucero’s Board members bring a diverse complement of technical expertise as well as direct industry experience. The Board has accountability to ensure the Company’s business activities are executed safely and responsibly, and that Lucero delivers on internally established sustainability goals. Our Board and leadership team believe in conducting themselves with the highest level of integrity and have implemented best practice corporate governance frameworks, stringent accountabilities, and maintain an unwavering commitment to our stakeholders. Lucero’s long-standing entrepreneurial culture embodies accountability, trust and transparency, which we believe are the hallmarks for success.

60%

Insider ownership* ensures strong alignment with shareholders

6.6yrs

Average Board tenure

100%

Board meeting attendance by all directors

Our 2023 Governance Goal



Align with TCFD Framework

Develop reporting processes to ensure transparency related to risks and opportunities associated with climate change on future sustainability reports

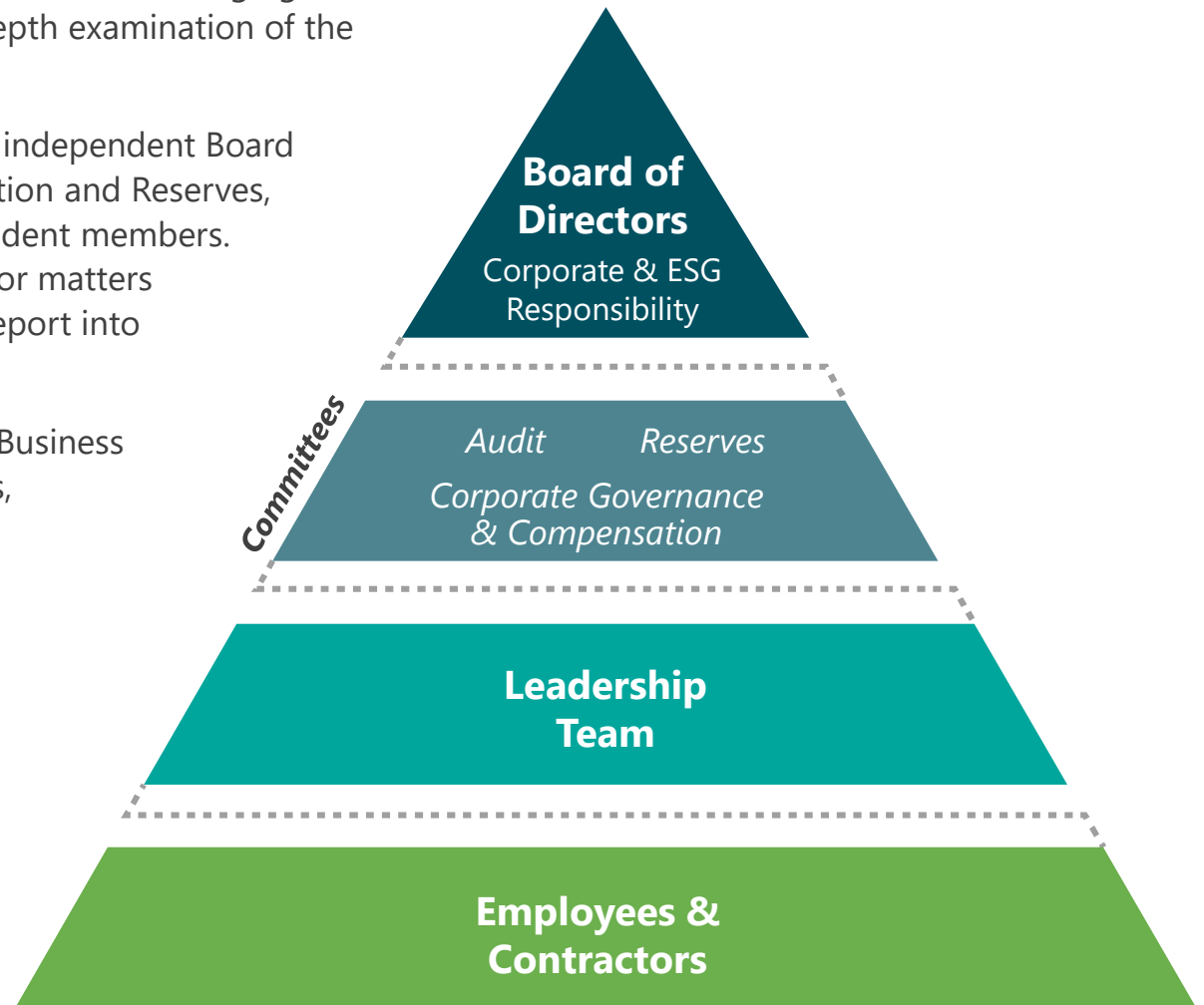
Sustainability Oversight

Lucero’s Board of Directors maintains oversight for all ESG and sustainability matters. The Company benefits from the full Board’s guidance and support to ensure optimal performance across matters pertaining to the environment, health and safety, people and community engagement. Further, Lucero strives for continuous improvement and enhancement of our ESG performance and aligns our practices with this objective.

Lucero has established committees to support the Board in discharging the Company’s responsibilities that allow for more in-depth examination of the major governance areas and functions.

These committees include Audit, comprised of fully independent Board members; and Corporate Governance & Compensation and Reserves, each of which is comprised of a majority of independent members. Lucero’s Board committees maintain responsibility for matters related to the respective disciplines of Lucero and report into the full Board.

For further information on our Board bios, Code of Business Conduct, corporate policies and committee charters, please visit our website at www.luceroCorp.com.



BUSINESS ETHICS & TRANSPARENCY

Lucero is committed to ethical and transparent business practices in accordance with our Corporate Governance & Compensation and Audit Committee Charters, our Whistleblower Policy and Code of Business Conduct and Ethics Charter. Our governance structure establishes a strong foundation for how we conduct ourselves while providing clear lines of responsibility from the field and head office through to the Board of Directors.

On an annual basis, each employee, officer and director is required to acknowledge acceptance and confirmation of Compliance with our Code of Business Conduct and Ethics Charter. We extend the application of our ethical and transparent business practices into standard contracts with suppliers of goods and services. All of Lucero's contracts require that suppliers comply with our Code of Conduct and Ethics Charter. The Company does not tolerate any form of corruption or bribery by our employees, contractors or business partners.

Our Board firmly believes in fostering a culture of ethical conduct and has a Whistleblower Policy in place. Lucero's Whistleblower Policy provides a mechanism whereby employees or other stakeholders may confidentially and anonymously raise concerns to Lucero's Audit Committee Chair about ethical conduct, any breach of our Code of Business Conduct and Ethics Charter or any noncompliance

with regulatory requirements, audit matters or audit controls. The Board is prepared to treat all complaints with the appropriate level of seriousness.

In 2022, we updated several key governance policies to reflect our dedication to protecting both our people and the environment. These include a refreshed Health & Safety Policy, Environmental Policy and the implementation of a Corporate Emergency Response Plan ("ERP"). The values and protocols we outline within each of these policies and plans serve as a baseline for the business standards we exemplify across the Company.

Lucero does not support any political parties and does not make any political donations either through direct funding or assistance in-kind. Payments to governments made by Lucero primarily consist of taxes and royalties, which contribute to the building of roads, schools and other critical infrastructure in North Dakota, where we conduct our business. On an annual basis we report on payments to governments through our ESTMA filings which are provided on our website at: www.luceroCorp.com.

ECONOMIC SUSTAINABILITY

The team at Lucero has worked hard to develop significant trust and credibility as a corporate citizen, solidifying the foundation for our long-term success. We aim to strike the right balance between our overall social responsibility, community engagement and workplace relationships with optimizing production and reserves by taking a prudent and disciplined approach to deploying capital expenditures.

While shareholder value creation is at our core, Lucero firmly believes in achieving our goals in a responsible manner that ensures care for people, the environment and society as a whole. We strive to be a sustainable, high-integrity business that delivers financial returns over the short and longer-term, responsibly operating in adherence with environmental regulations and best practices, and leaving positive impacts on our broader society.

BOARD & EXECUTIVE COMPENSATION

Our Corporate Governance and Compensation Committee is responsible for reviewing matters related to our human resource policies, assessing the effectiveness of our Board as a whole and the compensation programs for our directors and executives, which are reviewed throughout the year.

Lucero's compensation philosophy is directed primarily by two guiding principles: 1) provide competitive compensation packages at expected levels of performance in order to attract, motivate, and retain talented employees; and 2) create alignment between employees and shareholders by linking compensation with shareholder value maximization. We attempt to provide both short-term and long-term incentive compensation components that will vary based on a combination of corporate and individual performance. Lucero's compensation program ultimately aims to reward performance that is directly relevant to our short-term and long-term success, including performance on ESG-related metrics. Lucero's short-term incentive program ("STIP") has a component of the payout linked to performance on social and governance measures while environmental, health and safety metrics are incorporated into the Company's overall compensation.

Additional details regarding our governance philosophy, responsibilities, assessing and mitigating risks, and compensation structure are available in our Information Circular – Proxy Statement dated April 12, 2023.

RISK MANAGEMENT

As a North Dakota Bakken-focused oil and natural gas development and production company, Lucero's business is subject to the risks associated with the oil and natural gas industry, as well as risks inherent with operating in the US. Our risk management programs drive the identification, measurement, prioritization and management of risk across the Company, the results of which are presented to the Board through regular updates and reflected in our Management's Discussion & Analysis ("MD&A").

We are exposed to a number of risks, some of which impact the entire oil and gas industry and others that are unique to our operations. The Board has responsibility to ensure management has identified relevant risks and has proper systems and practical procedures in place to monitor, manage or mitigate those risks, including both physical and energy transition risk. As part of this, we regularly monitor and assess risks related to the Company's operations and our business, including across factors such as governance, health and safety, environmental and regulatory matters. Effective risk management helps ensure consistent and reliable execution of our strategy and major business objectives.

In addition, to mitigate risks while maintaining business continuity, we have established processes and programs which are integrated throughout Lucero. Part of this includes maintaining a healthy insurance program designed to protect against financial losses associated with identified risks wherever possible.

Material Risks & Risk Assessment

Understanding and addressing our material risks is critical to the achievement of our objectives and strategy. At Lucero, risk is managed through management processes including those for environmental, health and safety, as well as sustainability in the communities where we have active operations. Our determination of risk may use varying qualitative and quantitative risk assessment mechanisms in determining the risk posed by specific sources. Our functional leaders are responsible for ensuring policies, plans and programs developed within their areas of accountability contribute to the achievement of Lucero's business strategy and risk management objectives.

Outcomes of risk assessment and stakeholder engagement activities are used to develop and review the management standards, procedures and guidelines used to control risk. We continually reassess all aspects of our business to ensure that we are at the forefront of risk management to ensure Lucero remains a healthy and sustainable entity for many years to come.

Regulatory Risks

All of the Company's operations are in North Dakota, which subjects Lucero to rigorous state and federal regulatory processes and compliance requirements for our properties and assets. Ensuring compliance with these regulations forms an integral element of our operations and we strive to meet or exceed the relevant federal and state legislation and regulations in the jurisdictions where we operate. For a description of the key regulations that impact the crude oil and natural gas industry in the state where we operate, please refer to Lucero's Annual Information Form on our website at www.lucero.com.

Sustainability Risks

Assessment of sustainability risks draws on information from a range of sources, including performance data reported by our operations, scientific research reports, best practice guidelines, peer company reports and external sustainability initiatives and regulatory frameworks. Our functional leaders keep abreast of developments (internal and external) in Lucero's sustainability context and evaluate stakeholder concerns and feedback obtained through the various engagement activities occurring at field, regional, state, federal and corporate levels.

Critical risks of significance, including sustainability-related risks, are reported to and monitored by the Board. Below the Board level, reporting on sustainability risks is addressed through routine management reports developed by functional and operational leaders at different levels of our Company.

Environmental Liabilities

Reviews of environmental liabilities are conducted across operational and non-operational locations by state regulators. We also proactively inspect our infrastructure and the assets we control in order to identify and prevent potential incidents and minimize environmental impacts. The outcomes of such risk audits and reviews form the basis for Lucero's plans to address potential performance deficiencies and weaknesses in our risk management processes.



Health, Safety & Environment Tail-End Risk Mitigation

Lucero maintains a robust Health, Safety & Environmental (“HSE”) management system and ERP based on accepted industry standards including ISO 140001 Environmental Management Systems, ISO 45001 Occupational Health and Safety Management Systems and the International Labor Office ILO-OSH 2001 Guidelines on Occupational Safety and Health Management Systems. We recognize the unfortunate potential for critical and tail-end risks within our industry, though we actively uphold a defense against such risks through training procedures, incident reporting, investigation and corrective actions, and robust preventative maintenance. In the low probability that a catastrophic incident did occur, Lucero’s ERP would be initiated.

Several key HSE Management system components were updated in 2022 to ensure continuous improvement and incident readiness, including implementation of a revised Health and Safety Manual and Spill Prevention, Containment & Countermeasures Plan along with associated training. In addition, Lucero completed two table-top ERP exercises designed to replicate real-life scenarios and ensure our team is prepared and ready to respond should an incident occur.

To date, Lucero has not had any incidents or catastrophic events that have resulted in major injuries to workers or to the public. In addition, the Company has not experienced any events in the past three years that would be defined as Tier 1 process safety events according to the International Association of Oil & Gas Producers report 456.

For a summary of the material risks related to us, refer to our 2022 annual MD&A and Annual Information Form on our website at www.luceroCorp.com.



PERFORMANCE SUMMARY

Financial Performance	Unit	2020	2021	2022	Guidance	
					SASB	GRI
Market cap	C\$ millions	26.4	219.8	364.3		GRI 201-1
Petroleum and natural gas revenues	C\$ millions	143.5	229.3	342.6		GRI 201-1
Distributed as Follows:						
Dividends declared to shareholders and share buybacks	C\$ millions	1.9	-	-		201-1
Employees (salaries, benefits and cash long-term incentives)	C\$ millions	3.3	4	6.1		201-1
Suppliers (operating expenses, other G&A, finance expenses)	C\$ millions	54.3	101	98.3		201-1
Governments (production and mineral taxes, cash taxes)	C\$ millions	25	33.5	57.5		201-1
Royalties (private landowners)	C\$ millions	13	26.2	33.6		201-1
Communities & non-profits (charitable contributions)	C\$ millions	-	-	-		201-1
Value Retained at Lucero	C\$ millions	46.1	64.6	147.1		201-1
Political Contributions	C\$ millions	-	-	-		415-1
Activity Metrics (Gross Operated)						
Production of Oil	bbl	2,430,676	1,868,419	2,224,158	EM-EP-000.A	
Production of Natural Gas	Mscf	5,544,588	4,678,206	5,895,180	EM-EP-000.A	
Production of Synthetic Oil	bbl	0	0	0	EM-EP-000.A	
Production of Synthetic Gas	Mscf	0	0	0	EM-EP-000.A	
Total Operated Production	BOE	3,354,774	2,648,120	3,206,688		
Total Produced Water	bbl	1,666,889	1,289,134	1,607,917		
Total Fluid Handled (Oil + Water)	bbl	4,097,565	3,157,553	3,832,075		
Total Fluid Handled (Oil + Water)	m3	655,610	505,208	613,132		
Number of off-shore sites	#	0	0	0	EM-EP-000.B	
Number of terrestrial sites	#	18	20	20	EM-EP-000.C	
Totals Licensed Wells (All States)	count	30	50	55		
Total Active Wells (All States)	count	29	47	52		
Total Inactive Wells (All States)	count	1	2	2		
Total Abandoned Wells (All States)	count	0	1	1		

PERFORMANCE SUMMARY, CONT'D

Greenhouse Gas Emissions⁽¹⁾ (Gross Operated)	Unit	2020	2021	2022	Guidance	
					SASB	GRI
Direct GHG Emissions (Scope 1)	CO2e tonnes/yr	105,313	112,077	48,559	EM-EP-110a.1	
% Methane	% of Scope 1	5.34%	6.70%	7.78%	EM-EP-110a.1	
Methane (CH4) - Total	CH4 tonnes/yr	201	268	135		
Methane (CH4) - Total	CO2e tonnes/yr	5,624	7,504	3,777		
Methane (CH4) Intensity	CH4 tonnes/BOE	0.00006	0.00010	0.00004		
Methane (CH4) Intensity	CO2e tonnes/yr	0.0017	0.0028	0.0012		
Indirect GHG Emissions (Scope 2)	CO2e tonnes/yr	1,380	1,635	4,282		
Direct GHG Intensity (Scope 1)	CO2e tonnes/BOE	0.0314	0.0423	0.0151		
Indirect GHG Emissions Intensity (Scope 2)	CO2e tonnes/BOE	0.0004	0.0006	0.0013		
% Scope 1 under emissions- limiting regulations	%	100%	100%	100%	EM-EP-110a.1	
Amount of gross Scope 1 from Flaring	CO2e tonnes/yr	100,681	99,969	42,081	EM-EP-110a.2	
Amount of gross Scope 1 from Venting	CO2e tonnes/yr	732	1088	1344	EM-EP-110a.2	
Amount of gross Scope 1 from Fugitive Emissions	CO2e tonnes/yr	120	143	642	EM-EP-110a.2	
Amount of gross Scope 1 from Stationary Fuel Combustion	CO2e tonnes/yr	3,780	10,877	4,492	EM-EP-110a.2	
Air Quality (Gross Operated)						
Oxides of Nitrogen (NOx)	tonnes	NPT	97.47	73.3	EM-EP-120a.1	
Sulfur dioxide (SO2) Total	tonnes	NPT	0.1	0.1	EM-EP-120a.1	
Volatile Organic Compounds ("VOCs")	tonnes	NPT	292.71	192.54	EM-EP-120a.1	
Total Particulate Matter (PMTotal)	tonnes	NPT	53.26	23.98	EM-EP-120a.1	
Water Management (Gross Operated)						
Total Fresh Water Withdrawn	m3	3,178	147,360	68,235	EM-EP-140a.1	
	bbls	20,000	927,395	429,183		
Total Fresh Water Consumed	m3	3,178	147,360	68,235	EM-EP-140a.1	
Fresh Water Use Intensity	m3/BOE	0.00095	0.05565	0.02127		
	bbl/BOE	0.00596	0.35021	0.13384		
Total Fresh Water Withdrawn in regions with High or Extremely High Baseline Water Stress	%	0	0	0	EM-EP-140a.1	
Total Fresh Water Consumed in regions with High or Extremely High Baseline Water Stress	%	0	0	0	EM-EP-140a.1	

⁽¹⁾ EPA GHG reports utilize AR4 GWPs, while SASB recommends application of AR5 GWPs.

PERFORMANCE SUMMARY, CONT'D

Water Management, (Gross Operated) Cont'd	Unit	2020	2021	2022	Guidance	
					SASB	GRI
Volume of Produced and Flowback Water Generated	thousand m3	225	265	205	EM-EP-140a.2	
% Produced and Flowback Discharged	%	0%	0%	0%	EM-EP-140a.2	
% Produced and Flowback Injected	%	100%	100%	100%	EM-EP-140a.2	
% Produced and Flowback recycled	%	0%	0%	0%	EM-EP-140a.2	
Hydrocarbon content in discharge water	tonnes	0	0	0	EM-EP-140a.2	
Percentage of hydraulic fractured wells for which there is public disclosure of all fracturing fluid chemicals used	%	100%	100%	100%	EM-EP-140a.3	
Percentage of hydraulic fracturing sites where ground or surface water quality deteriorated compared to baseline	%	0%	0%	0%	EM-EP-140a.4	
Land & Biodiversity (Gross Operated)						
Number of Spills	count	4	0	2	EM-EP-160a.2	
Volume of Spills	m3	2.19	0	2.38	EM-EP-160a.2	
	bbls	9	0	15		
Spill Intensity	m3 spilled/1,000					
	bbls fluid handled	0.00053	0.00000	0.00062		
Spill Intensity per gross operated production	bbls spilled / MMbbls fluid handled	2.68	0.00	3.91		
Fines and penalties	count	0	0	0		
Volume in Artic	m3			Not Applicable	EM-EP-160a.2	
Volume Impacting Shorelines	m3			Not Applicable	EM-EP-160a.2	
Percentage of proved reserves in or near sites with protected conservation status or endangered species habitat	%	See Qualitative Discussion			EM-EP-160a.3	
Percentage of probable reserves in or near sites with protected conservation status or endangered species habitat	%	See Qualitative Discussion			EM-EP-160a.3	
Abandonment & Reclamation (Gross Operated)						
Total Licensed Wells (All States)	count	30	50	55		
Total Active Wells (All States)	count	29	47	52		
Total Inactive Wells (All States)	count	1	2	2		
Total Abandoned Wells (All States)	count	0	1	1		
Active reclamation ongoing	count	0	0	0		
Reclamation certificates received	count	0	0	0		
Area of active wellsites in active reclamation	Ha	0	0	0		

PERFORMANCE SUMMARY, CONT'D

Guidance

Security, Human Rights & Rights of Indigenous Peoples (Gross Operated)

	Unit	2020	2021	2022	SASB	GRI
Percentage of proved reserves in areas of conflict	%	0%	0%	0%	EM-EP-210a.1	
Percentage of probable reserves in areas of conflict	%	0%	0%	0%	EM-EP-210a.1	
Percentage of proved reserves in or near indigenous lands	%	100%	100%	100%	EM-EP-210a.2	
Percentage of probable reserves in or near indigenous lands	%	100%	100%	100%	EM-EP-210a.2	

Anti-Corruption

Number of corruption incidents confirmed	count	0	0	0		GRI 205-3
Employees who signed the code of conduct	percent	NPT	NPT	100		GRI 102-16
Breaches of the code of conduct	count	0	0	0		GRI 102-16
Number of calls to the whistleblower reporting line	count	0	0	0		GRI 205-3

Community Relations

Number and duration of non-technical delays	number, days	0,0	0,0	0,0	EM-EP-210b.2	
Community Investment	\$ 000's	0	4	17		GRI 201-1

Workforce Health & Safety

Combined Total Worker Hours (Employee & Contractor)	Hours/yr	257,396	653,100	867,544		
Lost Time Injuries (Employee & Contractor)	count	0	0	0		
Total Recordable Injuries (Employee & Contractor)	count	5	0	0		
Lost Time Injury Frequency (Employee & Contractor)	LTI / 200,000 hours	0	0	0		
Total Recordable Injury Frequency (Employee & Contractor)	RI / 200,000 hours	0.00003	0.00000	0.00000		
Total Recordable Incident Rate ("TRIR")	RI x 200,000/total hours worked	3.89	0.00	0.00	EM-EP-320a.1	GRI 403-9
Fatalities	count	0	0	0	EM-EP-320a.1	GRI 403-9
Near Miss frequency rate ("NMFR")	NM x 200,000/ total hours worked	NPT	NPT	1.38	EM-EP-320a.1	GRI 403-9
Average hours of health safety & emergency response training (employees)	average hours/worker	NPT	NPT	3	EM-EP-320a.1	
Average hours of health safety & emergency response training (contract employees)	average hours/worker	NPT	NPT	12	EM-EP-320a.1	
Average Hrs. of health safety & emergency response training (short service employees)	average hours/worker	NPT	NPT	N/A	EM-EP-320a.1	

PERFORMANCE SUMMARY, CONT'D

	Unit	2020	2021	2022	Guidance	
					SASB	GRI
Critical Incident Risk Management						
Total Worker Hours (contractor & employee)	hours	257,396	653,100	867,544	EM-EP-540a.1	
Tier 1 Process Safety Event ("PSE")	count	0	0	0	EM-EP-540a.1	
Tier 1 PSE Rate	(Tier 1 PSE count / Total hours worked) x 200,000	0	0	0	EM-EP-540a.1	
Reserves Valuation & Capital Expenditures						
Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions	MMbbls	Lucero does not currently have an indicator that is aligned with SASB methodology			EM-EP-420a.1	
Estimated carbon dioxide emissions embedded in proved hydrocarbon reserves	tones CO ₂ e	Lucero does not currently have an indicator that is aligned with SASB methodology			EM-EP-420a.2	
Amount invested in renewable energy; revenue generated by renewable energy sales	CAN\$	Lucero does not currently invest in renewable energies with a commercial purpose			EM-EP-420a.3	
Business Ethics & Transparency						
Percentage of proved reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	%	0%	0%	0%	EM-EP-510a.1	
Percentage of probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	%	0%	0%	0%	EM-EP-510a.1	
Workforce						
Total employees	count	17	17	23		GRI 405-1
Full-time	count	17	17	23		GRI 405-1
Part-time	count	0	0	0		GRI 405-1
Women in total workforce	count	5	5	5		GRI 405-1
Women in non-executive leadership position	count	1	1	2		GRI 405-1
Women in executive leadership position	count	0	0	1		GRI 405-1
Female Board members	count	0	0	0		GRI 405-1
Employees under 30	count	NPT	NPT	0		GRI 405-1
Employees 30-50	count	NPT	NPT	14		GRI 405-1
Employees over 50	count	NPT	NPT	9		GRI 405-1
Employees receiving performance reviews	count	NPT	NPT	23		GRI 405-1
Turnover rate, total	count	NPT	NPT	10		GRI 405-1
Turnover rate, voluntary	count	NPT	NPT	1		GRI 405-1

PERFORMANCE SUMMARY, CONT'D

Human Rights	Unit	2020	2021	2022	Guidance	
					SASB	GRI
Number of discrimination and harassment incidents	count	0	0	0		GRI 406-1
Incidents closed	count	n/a	n/a	n/a		GRI 406-1
Monetary losses from discrimination and harassment legal proceedings	\$	0	0	0		GRI 406-1
Grievances reported	count	0	0	0		GRI 406-1

SASB Qualitative Reference Table

SASB Reference

Greenhouse Gas Emissions	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets:	EM-EP-110a.3
Biodiversity	Description of environmental management policies and practices for active sites	EM-EP-160a.1
Security, Human Rights & Rights of Indigenous Peoples	Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	EM-EP-210a.3
Community Relations	Discussion of process to manage risks and opportunities associated with community rights and interests	EM-EP-210b.1
Workforce Health & Safety	Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	EM-EP-320a.2
Reserves Valuation& Capital Expenditures	Discussion of how price and demand for hydrocarbons and/or climate regulation influence the capital expenditure strategy for exploration, acquisition, and development of assets	EM-EP-420a.4
Business Ethics & Transparency	Description of the management system for prevention of corruption and bribery throughout the value chain	EM-EP-510a.2
Management of the Legal & Regulatory Environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	EM-EP-530a.1
Critical Incident Risk Management	Description of management systems used to identify and mitigate catastrophic and tail-end risks	EM-EP-540a.2

ADVISORIES

Disclaimers

This 2022 ESG Report (the "Report") is for information purposes only and is being made available by Lucero to provide information on Lucero, its business and its approach to ESG matters.

This Report does not constitute an offer to sell to any person, or an offer to the public of, or the solicitation of an offer to subscribe or purchase, any securities of Lucero, nor shall this Report or any part of it, or the fact of its delivery or availability, form the basis of, or be relied upon in connection with, or act as an inducement to enter into, any contract or commitment whatsoever with respect to any securities.

Forward-Looking Statements

This Sustainability Report contains certain forward-looking information and statements within the meaning of applicable securities laws. The use of any of the words "expect", "anticipate", "continue", "estimate", "objective", "ongoing", "may", "will", "project", "should", "believe", "plans", "intends", "strategy" and similar expressions are intended to identify forward-looking information or statements. In particular, but without limiting the foregoing, this Report contains forward-looking information and statements pertaining to the following: Lucero's positioning for growth; the list of material issues to be reported on in future reports; commitments to using electricity to power future operations and anticipated effects on emissions; plans for water usage in operations; corporate ARO strategies and plans; health and safety goals; Lucero's plans for a formal donations budget in 2023; governance goals; Lucero's commitment to the continuous improvement of its performance; Lucero's intended sustainability reporting and performance metrics; the expected priorities of Lucero's future sustainability report; Lucero's intention to continue to assess energy efficiency measure to reduce the emissions intensity of its assets; expectations that Lucero will continue to dedicated resources to drive operational efficiencies in design, including air, waste heat recovery and electrification; that Lucero will continue to work closely with technology providers, service providers and peers, to evaluate the feasibility and potential impact of new technology applications across its operations; the intention to continue to increase electrification; Lucero's continued success and improvement in water recycling and decreasing water use in its completion activities; expectations that health and safety focus areas will inform Lucero's future efforts, improve Lucero's health and safety performance and effectively manage risks; Lucero's goals and targets with respect to social responsibility and corporate governance and the timing thereof; expectations that Lucero will continue to demonstrate leadership through active engagement with stakeholders; expectations that Lucero will continue to seek opportunities to engage proactively and advance its knowledge in partnership with Indigenous communities near or on its operations; and expectations that Lucero's ESG performance will continue to improve.

The forward-looking information and statements contained in this Sustainability Report reflect several material factors, expectations and assumptions of Lucero, including, without limitation: the general continuance of current industry conditions; that innovation and the application of clean technologies will continue to be the major drivers behind Lucero's leading emissions performance; anticipated results of various technologies; that electrification will play a significant role; that there will continue to be a growing emphasis on energy security; the continuance of existing (and in certain circumstances, the implementation of proposed) tax, royalty and regulatory regimes; the Company's capital budget and operational plans for 2023; expectations that continuous monitoring can lead to reducing emissions; the ability to complete the infrastructure projects on the proposed timelines and within the proposed budget; the ability to implement new technologies; the ability to obtain all necessary regulatory approvals on the anticipated timelines; certain commodity price and other cost assumptions for 2023; the continuity of community priorities; that taking a balanced approach to responsible development led by certain guiding principles will be key in harmonizing the environment and the economy; the retention of Lucero's key properties; access to equipment and qualified personnel; and the continued availability of adequate debt and equity financing and funds from operations to fund its planned expenditures. Lucero believes the material factors, expectations and assumptions reflected in the forward-looking information and statements are reasonable, but no assurance can be given that these factors, expectations and assumptions will prove to be correct.

The forward-looking information and statements included in this Report are not guarantees of future performance and should not be unduly relied upon. Such information and statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking information or statements including, without limitation: changes in Lucero's plans regarding the implementation of new technologies, facilities replacement and construction, and operations based on key learnings and experience gained through the design and implementation of such plans; changes to government regulations including royalty rates, taxes, and environmental and climate change regulation; delays and cost overruns in respect of the proposed projects; the inability to obtain the necessary regulatory approvals within the anticipated timelines; changes in commodity prices; changes in the demand for or supply of Lucero's products; the impact of the economic development of emerging economies on demand for fuel products; changes in development plans of Lucero or by third-party operators of Lucero's properties; changes to the government; increased debt levels or debt service requirements; loss of key personnel; limited, unfavorable or a lack of access to capital markets; deterioration of relations with Indigenous groups; a lack of adequate insurance coverage; the impact of competitors; and certain other risks detailed from time-to-time in Lucero's public disclosure documents (including, without limitation, those risks identified in this Report and in Lucero's Annual Information Form for the year ended December 31, 2022 (the "AIF") which is available on Lucero's profile on SEDAR at sedar.com).

The internal projections, expectations or beliefs are based on the 2023 capital budget which is subject to change in light of ongoing results, prevailing economic circumstances, commodity prices and industry conditions and regulations. Accordingly, readers are cautioned that events or circumstances could cause results to differ materially from those predicted. The forward-looking information and statements contained in this Report speak only as of the date of this Report, and none of Lucero or its subsidiaries assumes any obligation to publicly update or revise them to reflect new events or circumstances, except as may be required pursuant to applicable laws.

ADVISORIES, CONTINUED

Third-Party Information

This Report includes market, industry and economic data which was obtained from various publicly available sources and other sources believed by Lucero to be true. Although Lucero believes it to be reliable, it has not independently verified any of the data from third party sources referred to in this Report or analyzed or verified the underlying reports relied upon or referred to by such sources or ascertained the underlying economic and other assumptions relied upon by such sources. Lucero believes that its market, industry and economic data is accurate and that its estimates and assumptions are reasonable, but there can be no assurance as to the accuracy or completeness thereof. The accuracy and completeness of the market, industry and economic data used throughout this Report are not guaranteed and Lucero makes no representation as to the accuracy of such information.

Oil and Gas Information

Oil related terms and measurements

bbls	barrels	Mscf	Thousand standard cubic feet
MMbbl	Millions of barrels		

Barrels of Oil Equivalent

The term "boe" or barrels of oil equivalent may be misleading, particularly if used in isolation. A boe conversion ratio of six thousand cubic feet of natural gas to one barrel of oil equivalent (6 Mcf: 1 bbl) is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. Additionally, given that the value ratio based on the current price of crude oil, as compared to natural gas, is significantly different from the energy equivalency of 6:1; utilizing a conversion ratio of 6:1 may be misleading as an indication of value.

Reserves

The estimates of Lucero's reserves set forth in this presentation have been derived from a report of Netherland, Sewell & Associates, Inc. ("NSAI") with an effective date of December 31, 2022 (the "NSAI Report"), which was prepared in accordance with National Instrument 51-101 – Standards of Disclosure for Oil and Gas Activities ("NI 51-101") and the Canadian Oil and Gas Evaluations Handbook (the "COGEH"). A complete statement of reserves data and oil and gas information in accordance with NI 51-101 for the year ended December 31, 2022 can be found in the AIF which is available on Lucero's profile on SEDAR at sedar.com.



MANAGEMENT TEAM

Brett Herman	President & CEO
Jason Skehar	Chief Operating Officer
Marvin Tang	VP Finance & CFO
Anthony Baldwin	VP Business Development
Sandy Brown	VP Geosciences
Kristine Lavergne	VP Engineering
Shane Manchester	VP Operations

BOARD OF DIRECTORS

M. Bruce Chernoff – Chairman
Brett Herman
David Rain
Gary Reeves
Jacob Roorda
Dale O. Shwed

CONTACT US

Calgary Office

Lucero Energy Corp.
1800, 350 – 7th Avenue SW
Calgary, AB T2P 3N9
Phone: 877-573-0181

Denver Office

PetroShale (US), Inc.
303 E 17th Ave, Suite 940
Denver, CO 80203
Phone: 877-573-0181

