

Greenhouse Gas & Air Quality REPORT

2024

2024 Study of Greenhouse Gas Emissions and Air Quality Report

For the past nine years, Gran Tierra Energy (GTE) has publicly reported its Greenhouse Gas (GHG) Emissions. With the support of an external ISO 14064-01 accredited firm with international expertise in air quality and GHG emissions, the Company has created and refined a comprehensive inventory and evaluation of the GHG emissions and other main air pollutants. This voluntary assessment involved collecting, analyzing, and quantifying multiple data points from Colombian and Ecuadorian operations to obtain the most accurate results. An additional third-party certifier has verified our Colombian GHG emissions in Q2 2025 and Ecuador will be complete in Q4 2025.

GTE's 2024 report also integrates GHG emissions and air pollutants in its Canadian operations, acquired at the end of 2024. Following the GHG protocol for emissions accounting and reporting, the Company has recalculated its entire GHG emissions and air emissions dataset for all GTE operations from our 2019 base year to 2024. This was done to ensure consistency over time, relevance and accuracy in our reports.

Finally, this report presents recommendations for future reduction opportunities as part of our emissions reduction strategy.

Study Methodology

The primary GHGs emitted from oil and natural gas industry operations are carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). Collecting data on these emissions is important because many scientists believe these gases contribute to global climate change. Compiling and transparently reporting such information will allow GTE, its local and global stakeholders and the public to assess the Company's emission reduction efforts over time.

The assessment was conducted according to guidelines and standards adopted by the following organizations: International Petroleum Industry Environmental Conservation Association (IPIECA), International Association of Oil and Gas Producers (IOGP), American Petroleum Industry (API), U.S. Environmental Protection Agency (EPA), Canadian Association of Petroleum Producers (CAPP) and Intergovernmental Panel on Climate Change (IPCC).

Additionally, in recognition of the possible health impacts from non-GHG emissions, GTE collects, analyzes and publicly reports the release of volatile organic compounds (VOC), Sulphur Oxides (SO_x) and Nitrogen Oxides (NO_x) as well as Particulate Mater (PM10) from its operations. By compiling data on these non-GHG gases, GTE can confirm that our emissions of these substances adhere to all legal requirements in the jurisdictions we operate in. The Company's operations do not involve the use of, or result in the release of any of the "Hazardous Air Pollutants" as defined by the EPA.



GARY GUIDRY,
President and CEO



“With another transformational year, Gran Tierra Energy remains committed to reducing greenhouse gas emissions intensity through operational efficiency, flaring, reduction and innovative technologies. This year's report incorporates our newly acquired Canadian assets.”

Reporting Principles & Scope

GTE's GHG Emissions Report is prepared in adherence with the following principles according to the GHG Accounting and Reporting Principles of the GHG Protocol:

- **Relevance**
- **Completeness**
- **Consistency**
- **Transparency**
- **Accuracy**

The Operational Control Scope defines GTE's 2024 reporting boundary and encompasses all of Gran Tierra's operations in Canada, Colombia and Ecuador during the assessed year.



OPERATIONAL CONTROL SCOPE

CANADA

- Central region process facilities, well pads and camps
- Clearwater process facilities, well pads and camps
- Simonette process facilities, well pads and camps
- Wapiti process facilities, well pads and camps
- Carmangay process facilities, well pads and camps
- Clair process facilities, well pads and camps
- Marten process facilities, well pads and camps
- NW AB process facilities, well pads and camps
- Tony Creek process facilities, well pads and camps
- NE BC process facilities, well pads and camps

COLOMBIA

- The Putumayo process facilities, well pads and camps
- The Middle Magdalena Valley process facilities, well pads and camps
- The Bogotá office

ECUADOR

- Chanangue process facilities, well pads and camps
- Charapa process facilities, well pads and camps
- The Quito office

Reporting Period

The reporting period is defined as January 1st through December 31st, 2024.

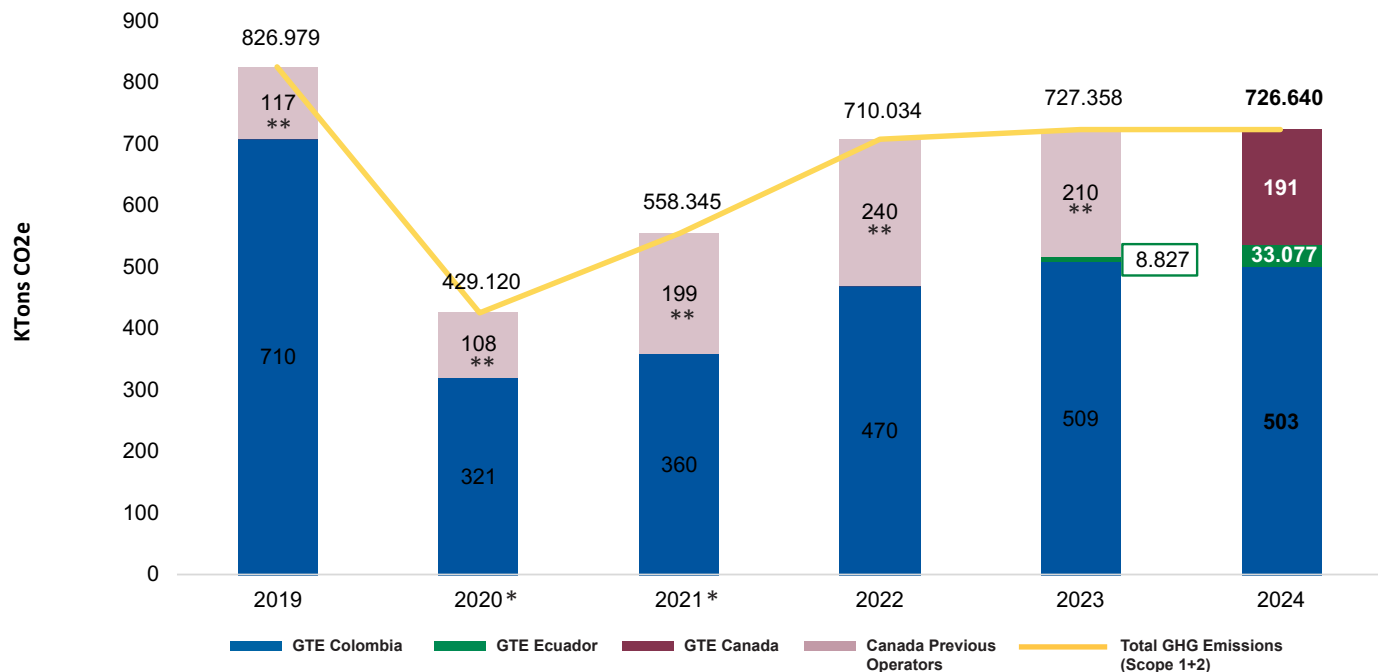
Reporting and Understanding GHG Emissions

The relative measure of how much heat potential a greenhouse gas absorbs and retains in the atmosphere is referred to as its Global Warming Potential (GWP). GWP is used to compare the global warming impacts of various gases. The higher the GWP, the more energy the gas absorbs per unit weight, thereby having a greater global warming impact. The GWP is a coefficient and is multiplied by the unit weight of the gas type. For this report, GTE utilized the Fifth Assessment Report (AR5) from the IPCC.

2024 Emissions Reduction Results

After acquiring producing Canadian oil and gas assets towards the end of 2024, GTE took action to integrate these operations into its corporate greenhouse gas (GHG) inventory. The Company adhered to the guidelines established in the GHG Protocol – Chapter 5, which outlines the requirements for tracking emissions over time to ensure comparability across reporting years. In accordance with this guideline, GTE has recalculated and restated its GHG emissions from 2019 to 2024. Emissions data from 2019–Q3 2024 for Canadian operations was calculated by previous operators and Q4 2024 was calculated by Gran Tierra after the Company acquired its Canadian assets in November 2024.

This approach provides a transparent, accurate, and comparable year-to-year dataset, aligning with best practices in emissions reporting and reinforcing the Company’s commitment to environmental accountability. The new data with Canadian assets is as follows:



GTE’s efforts toward GHG emissions reduction have demonstrated favourable progress. There was a 13% reduction in total emissions compared to 2019, and after the third-party verification, it was confirmed that our South American assets had a 25% reduction.

* Limited operations due to COVID-19 shutdown

** The recalculated values should not be interpreted as emissions under GTE’s control before the acquisition in November 2024

Emissions Intensity per Country (2024)

Country	Total Emissions (Scope 1+2) (Tons CO ₂ e)	Emissions Intensity (Kg CO ₂ e/Boe)
Canada	190,807	35.64
Colombia	502,756	39.82
Ecuador	33,077	34.86

Emissions by Gas (Scope 1)

Greenhouse Gas Type	Scope 1 Emission (Tons CO ₂ e)	% of Total Scope 1 GHG Emissions
CO ₂	328,372	65.7%
CH ₄	170,540	34.1%
N ₂ O	1,200	0.2%

Emissions by Source (Scope 1)

Source	Scope 1 Emission (Tons CO ₂ e)	% of Total Scope 1 GHG Emissions
Combustion	250,922	50.2%
Fugitive Emissions	13,299	2.7%
Mobile Emissions	62	0.0%
Flaring	88,537	17.7%
Venting	147,292	29.5%



18%

DECREASE IN SCOPE 1 & 2 EMISSIONS INTENSITY SINCE 2019 – COMPANYWIDE



72%

TOTAL ENERGY USED IN GTE'S SOUTH AMERICAN OPERATIONS WAS GENERATED BY GAS-TO-POWER

Targeted Emissions Reduction Actions

In 2024, GTE continued working to improve our GHG emissions performance, focusing mainly on the strategic actions defined in 2022. These actions were managed through our Energy Transition, Emissions Reduction, and Climate Adaptation Strategy (TEREAC Strategy), which outlines how the Company measures and reduces its emissions. This strategy also helps integrate mitigation and adaptation measures into our environmental and strategic policy.



GTE Action 1:

In 2024, through third-party certified companies, GTE conducted a comprehensive direct measure campaign for Fugitives and Vents across all Colombian assets. 14 fields were reviewed, including more than 600 pieces of equipment scanned using optical gas imaging (OGI) technology. The results of this thorough exercise enabled us to refine our GHG emissions inventory and identify meaningful improvement opportunities.



GTE Action 2:

The information from the direct measurement campaign allowed GTE to enhance its leak detection and repair (LDAR) program, closing promptly at least 88% of the detected leaks, accounting for approximately 6,000 tons of CO₂e per year. In addition, every vent was analyzed and closed as soon as possible, or included in a more robust strategy as required, either to utilize the gas or to be closed.



GTE Action 3:

For the Ecuadorian assets, the Company conducted a third-party verification process for the 2023 GHG emissions inventory, fulfilling the ISO 14064-1 and ISO 14064-3 standards.



GTE Action 4:

GTE continued the expansion of the Gas-to-Power strategy through the start-up of the project in the Ecuadorian fields by the end of the year. In 2024, GTE's main fields, Acordionero and Costayaco, achieved reductions of 99% and 89% in flaring emissions compared to the base year, respectively, primarily due to Gas-to-Power initiatives. With regard to future Gas-to-Power projects, the Company continues to seek opportunities and new developments that enhance the energy efficiency of our operations while reducing emissions.



GTE Action 5:

In rural Colombian villages, Gran Tierra Energy and Antonio Nariño University installed 13 residential biodigesters that treat wastewater and generate biogas for nearly 40 households and a school in the villages of Carmelita, Puerto Vega, and Remolinos. These systems treat wastewater organically and produce biogas, which reduces reliance on firewood and coal, leading to improved air quality. The success of this project shows how integrated solutions can deliver lasting environmental, social, and economic benefits, with plans to expand to more municipalities.

2024 Emissions Reduction Results

Gas-to-Power Highlights



26%

DECREASE IN SCOPE 1 EMISSIONS
SINCE 2019 – COMPANYWIDE

74%

DECREASE IN FLARING EMISSIONS
SINCE 2019 – COMPANYWIDE

99%

DECREASE IN FLARING EMISSIONS AT GTE'S
ACORDIONERO FIELD SINCE 2019

89%

DECREASE IN FLARING EMISSIONS
AT GTE'S COSTAYACO FIELD SINCE 2019



SEBASTIEN MORIN,
Chief Operating Officer



“At Gran Tierra, we recognize that reducing emissions is not just a responsibility, but an opportunity to innovate and lead. Through our voluntary Gas-to-Power projects, we have invested significant capital to reduce the flaring of associated gas, turning it into reliable energy.”

Reporting and Understanding Air Quality Indicators

In addition to greenhouse gases, industrial activity (including oil and gas extraction and processing) can have the potential to generate air bound impacts that can potentially be harmful to human health. The most widely recognized pollutants that could impact the air quality are Volatile Organic Compounds (VOCs), Sulphur Oxides (SOx), Nitrogen Oxides (NOx) and Particulate Matter (PM10) – 10 in this abbreviation refers to particles of a diameter of 10 microns or less. For context, the average human hair is approximately 70 microns in diameter.

Through regular ambient air quality testing in all of its areas of operations, Gran Tierra can confirm that our emissions of these substances comply with all applicable legal requirements in the jurisdictions we operate, minimizing any potential negative impacts to human health related to air quality.

Gran Tierra began publicly reporting on these metrics for the 2021 year and the 2024 results are summarized in the table below.

Non-GHG Air Pollutants (2024)

NOx (tons)	SOx (tons)	VOC (tons)	PM10 (tons)
1764.83	260.31	1166.73	60.04



Emissions Reduction Strategy

Gran Tierra's emissions reduction strategy focuses on three key areas: consistent, transparent, and expanded reporting, Gas-to-Power projects and through nature-based solutions. The Company continues to look for ways to reduce the emissions intensity of its operations, while growing its production in response to increasing global demand for energy products.

Gas-to-Power

Gran Tierra's ongoing effort to reduce direct emissions by converting associated gas produced from its wells into an energy source for its operations, continues to generate results. In 2024, Gran Tierra's largest producing asset, the Acordionero field, achieved 98% of its energy generation from gas. This achievement was a result of the continuous improvements in the fields' gas-to-power projects and efforts to enhance energy efficiency. Additionally, these initiatives led to an 8% reduction in greenhouse gas (GHG) emissions for the field compared to 2023. We continue to work on being more energy efficient in every field and reducing our flaring to the minimum safety levels.

Overall, 72% of GTE's energy requirements for South American assets were powered by Gas-to-Power projects in 2024.

Nature-Based Solutions

Gran Tierra also supports environmental projects that aid in natural carbon sequestration. Natural carbon sequestration is the process of capturing and storing atmospheric CO₂. Forests, wetlands and vegetation sequester carbon by capturing carbon dioxide from the atmosphere and converting it into organic matter.

Across all of its environmental programs, GTE has planted over 1.9 million trees and has conserved, preserved, or reforested over 5,300 hectares of land since 2018. Careful management ensures that the once-delicate saplings grow into sturdy, mature trees that contribute to national emissions reduction strategy goals. These efforts are undertaken through major initiatives including the NaturAmazonas project and the Costayaco and Acordionero Forestry Centres, which serve as hubs for sustainable reforestation and community education.



NaturAmazonas: Leading Conservation in the Colombian Amazon



NaturAmazonas, Gran Tierra Energy's flagship conservation program with Conservation International, has grown into a powerful alliance of public and private institutions tackling the root causes of deforestation.

NaturAmazonas has been at the forefront of Colombian conservation and reforestation efforts for seven years. With an \$18 million investment, GTE has created a model for protecting the Colombian Amazon's land, water, air, and biodiversity. In partnership with Conservation International, the Colombian Ministry of Environment and Sustainable Development, and Corpoamazonia, the program has restored ecosystems, fortified biodiversity and advanced sustainable agriculture. It has also driven critical advancements in ecological restoration, significant biodiversity research publications, and land management.

Equally important, NaturAmazonas strengthens the connection between people and nature, supporting lasting impact in one of the world's most biodiverse regions.

Through the reforestation and conservation efforts led by Gran Tierra, over 40,000 tons of CO₂e are sequestered each year in the regions near GTE's Colombian operations. Of the 40,000 tons, 68% of the total is sequestered from the Company's reforestation and conservation efforts in the Putumayo region alone.

DIEGO PEREZ-CLARAMUNT,
Vice President, Corporate HSE and Sustainability,
President & Country Manager, Colombia



"The NaturAmazonas initiative was born from a desire to protect the vast biodiversity of this region and the strong partnerships that have been established with local communities and additional partners is a testament to the success of the project so far."

NaturAmazonas Highlights



1.6M

Trees have been planted through NaturAmazonas



24,000

Hectares have been pollinated in the Colombian Amazon



3.7M

Plants have been grown in NaturAmazonas' nurseries



586ha

Hectares of cacao are currently under continuous maintenance

2,068ha

Hectares of land have been restored

2,000

Pounds of honey production capacity has been established

800

Species of flora have been documented

4,290

People have benefited from NaturAmazonas

Costayaco Forestry Centre

The Costayaco Forestry Centre (CFC) is one of the most innovative reforestation efforts in South America that has grown to 335 hectares, located near the Company's production facilities in Putumayo.

Established in 2010 in coordination with regional environmental regulator, Corpoamazonia, the facility has grown into a significant habitat for butterflies, birds, large felines and other wildlife. The Centre is strategically located in an important environmental corridor connecting the Andean foothills and Amazonian Forest ecosystems. It serves as a focal point for the Company's compensatory requirements as well as many of its voluntary environmental activities.

The CFC contributes to emissions reductions by restoring degraded land with native trees, which absorb and store carbon dioxide. Beyond carbon sequestration, the centre supports sustainable land management practices and community-led conservation initiatives, helping offset emissions from our operations, while improving biodiversity and the quality of life for local residents.

Acordionero Forestry Centre

The Acordionero Forestry Centre (AFC) is a new facility in El Cairo village (Colombia), dedicated to advancing biodiversity conservation through reforestation, sustainable agricultural management, and environmental innovation. The AFC has successfully conserved 185 hectares and planted 10,992 trees. This rapid progress has positioned the Centre as a key player in protecting vital water resources in the Lebrija River sub-basin, which contributes to the health of the larger Magdalena River system.

The Centre is leading sustainable solutions by integrating aquaponics, which grows crops with minimal water, protecting stingless bees who are vital pollinators that sustain forests, crops and biodiversity, and installing biodigesters that convert waste into clean energy to reduce the reliance on firewood and coal. Together, these innovations aid in reducing GHG emissions by decreasing dependence on firewood and coal, conserving ecosystems, and reducing methane emissions from waste.



Our Forestry Centres



100,644

Trees were planted across the Acordionero and Costayaco Forestry Centres to date



79,819

Trees have been donated to local communities and educational centres since 2010

Conclusions

Gran Tierra has successfully increased oil and gas production while continuing to maintain lower GHG emissions than in 2019, the Company's established base year. 2024 represented a significant reduction of 13% in total Scope 1 and 2 GHG emissions since 2019, and a total of 726,640 tonnes of carbon dioxide equivalent (CO₂e) was emitted in 2024. These reductions demonstrate progress by efficiently producing energy resources with a decreased carbon footprint.

Futhermore, Gran Tierra's 2024 results showed a substantial reduction of 18% in emissions per barrel of oil equivalent (Kg CO₂e/BOE), often described as "carbon intensity") compared to the base year. These achievements highlight Gran Tierra's ongoing commitment to lowering emissions intensity, while responsibly supplying the energy required worldwide.



BACKGROUND ON GRAN TIERRA ENERGY

Gran Tierra Energy Inc. together with its subsidiaries is an independent international energy company currently focused on oil and natural gas exploration and production in Canada, Colombia and Ecuador.

Gran Tierra believes that our activities and presence should coincide with a healthy environment and prosperous communities.

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