



REPORT

2021 GHG Verification

Torex Gold Resources Inc.

Prepared for:
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Envirochem Project No.: 21028

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VERIFICATION STATEMENT

May 3rd, 2022

Torex Gold Resources Inc. (Torex) retained Envirochem Services Inc. (Envirochem) to conduct a third-party verification to a limited level of assurance on their 2021 GHG inventory (“GHG Assertion”). This GHG Verification was developed following ISO 14064 methodology.

The GHG Assertion is comprised of the “20220425__Energy and GHG Emissions Inventory__Updated” document, prepared by Minera Media Luna, S.A. de C.V. (“Responsible Party”). The GHG Assertion states a total of 196,704 tonnes CO₂e were emitted during the 2021 calendar year (January 1st, 2021 to December 31st, 2021). As the verifier, it is Envirochem’s responsibility to express an opinion as to whether the GHG Assertion is materially correct, in accordance with the stated methodologies.

The review was completed in accordance with ISO 14064 Part 3, and the work was performed to provide limited, but not absolute assurance with respect to the GHG Assertion.

Based on the processes and procedures conducted and described in this Verification Statement, Envirochem is satisfied that the GHG Assertion, including the asserted annual emission of 196,704 tonnes CO₂e for the 2021 reporting period is materially correct, and a fair and accurate representation of the GHG Assertion in accordance with the verification criteria. There are no unresolved discrepancies that dispute the belief that the GHG Assertion is not, in all material respects, fairly presented in accordance with the relevant criteria.

Yours truly,

Envirochem Services Inc.

VERIFICATION SUMMARY

Level of Assurance	<ul style="list-style-type: none"> Limited level of assurance
Objectives	<ul style="list-style-type: none"> Issue a verification report that details the verification activities Issue a limited verification statement
Criteria	<ul style="list-style-type: none"> ISO 14064-1:2018 Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals (“ISO 14064 - Part 1”) ISO 14064-3:2019 Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements (“ISO 14064 - Part 3”)
Summary	<ul style="list-style-type: none"> No unresolved material discrepancies identified
Verification Team	<ul style="list-style-type: none"> Farzad Dehkordi Neil Allen Alex Jardine Joshua Nurdjaja Kimberly Walton
Scope	<ul style="list-style-type: none"> Facility Name: El Limón Guajes mining complex (ELG Mine Complex) and the Media Luna early stage development project Organizational Boundary: Operational Control Physical Operations: Gold mining and processing Emission Sources: Stationary fuel combustion, mobile fuel combustion, electricity, process emissions GHG’s Emitted: Carbon Dioxide, Methane, Nitrous Oxide
Reporting Period	<ul style="list-style-type: none"> Reporting Period: January 1, 2021 – December 31, 2021
Materiality	<ul style="list-style-type: none"> Quantitative materiality threshold is 5%
GHG Inventory	<ul style="list-style-type: none"> 196,704 tonnes CO₂e

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1.0 INTRODUCTION

This Verification Report summarizes the tasks taken for planning and executing the verification to deliver an opinion as to whether the GHG Assertion is presented fairly and in accordance with the verification objectives, scope and criteria. It includes the five components described below:

- Verification Summary, shown above;
- Introduction, which describes the parties, the verification objectives and the operations that were reviewed;
- Verification Schedule, which describes key activities and dates;
- Verification Findings, which describes the results of the verification; and,
- Verification Statement, provided at the start of this Verification Report.

1.1 Facility Description

El Limón Guajes (ELG) gold mining complex is located in the highly prospective Guerrero Gold Belt, 180 kilometres southwest of Mexico City, in the state of Guerrero, Mexico. The El Limón Guajes mining complex is a gold mining operation comprised of the El Limón, Guajes and El Limón Sur open pits, the El Limón Guajes underground mine including zones referred to as Sub-Sill, El Limón Deep and 71, and the processing plant and related infrastructure. Processing of the gold ore is conducted centrally with a targeted throughput rate of 13,000 tonnes per day. The operation utilizes filtered tailings, a process in which the moisture content of tailings is reduced.

Greenhouse gas emissions result from the operation of the facility including stationary combustion, mobile combustion, electricity consumption, explosives usage, welding fumes, oxidation of lubricants, and anaerobic degradation during waste water treatment.

2.0 METHODOLOGY

Envirochem's verification team developed a GHG Emission Inventory, following the principles outlined in ISO 14064 - Part 1¹, was developed and compared against the Mine's GHG Assertion to verify the methodology used (including confirming that all calculations, units, conversion factors, and parameters were correct) and confirm results. The verification team created a GHG emissions inventory to confirm that all calculations, units, conversion factors, and parameters were correct.

Project documents provided by Torex (Responsible Party), and supplementary documents published by the Mexican federal government, the Secretariat of Environment and Natural Resources (SEMARNAT), and the Intergovernmental Panel on Climate Change (IPCC), were reviewed during this process.

¹ ISO 14064-1:2018 Greenhouse gases — Part 1: "Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals"

The emissions factors used in the GHG Assertion appear to be appropriate for the emission inventory calculation. It should be noted, however, that there are alternative sources for emission factors that may result in slight variations in calculated emissions.

2.1 Documents Reviewed

The following documents were provided by the Responsible Party, and reviewed as part of the verification process:

- 20220425__Energy and GHG Emissions Inventory__Updated.xls;
- Inventario GEI 2020_MML_FE 2020.xls; and,
- 2019 Torex GHG Inventory.xls.

The following is a list of additional supplementary documents that were used for the verification process:

- El Reglamento de la Ley General de Cambio Climático en Materia del Registro Nacional de Emisiones;
- Acuerdo que establece las particularidades técnicas y las fórmulas para la aplicación de metodologías para el cálculo de emisiones de gases o compuestos de efecto invernadero;
- 2006 IPCC Guidelines for National Greenhouse Gas Inventories;
 - Volume 3: Industrial Processes and Product Use, Chapter 5: Non-Energy Products from Fuels and Solvent Use, and
 - Volume 5: Waste, Chapter 6: Wastewater Treatment and Discharge; and,
- SEMARNAT Factor De Emision Del Sistema Electrico Nacional 2021.

2.2 Verification Schedule

The following details the schedule established for the verification process:

- Initial Meeting: March 2022;
- Envirochem begins verification process: April 2022;
- Draft verification report provided to Torex: April 29th, 2022; and,
- Final verification report is complete: May 3rd, 2022

3.0 RESULTS

3.1 Verification Findings

A summary of verification items, verification procedure, and findings are shown in **Table 1**. This assessment was used to advise the verification opinion in determining the consistency of the GHG Assertion within the verification objective, scope, and criteria. There are no unresolved discrepancies that dispute the belief that the GHG Assertion is not, in all material respects, fairly presented in accordance with the relevant criteria.

Table 1: Verification Findings

Description	Procedure	Findings
Emission Sources	Comparison of 2021 GHG Inventory to 2020 GHG Inventory.	Mobile diesel construction machinery emissions and CO ₂ used in equipment maintenance emissions were included in 2021, which had not been included previously. No material discrepancies have been detected.
Changes in Emissions	Comparison of 2021 GHG Inventory to 2020 GHG Inventory.	Annual emissions have increased by 2.9%. No material discrepancies have been detected.
Emission Quantification	GHG Emission Inventory: Calculations and activity data reviewed.	GHG quantification methodologies were compared to those published by relevant regulatory bodies including SEMERNAT and IPCC. Emissions were recalculated using provided activity data. No material discrepancies have been detected.
Completeness of Activity Data	Comparison of 2021 GHG Inventory to 2020 GHG Inventory.	Activity data is comprehensive and consistent with operations. No material discrepancies have been detected.
Diesel	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.
Gasoline	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.
Liquefied Petroleum (LP) Gas	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.
Electricity	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.
Lubricant	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.
Explosives	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.

Description	Procedure	Findings
Welding	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.
Waste Water Treatment	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.
GHG and Energy Intensity	GHG Emission Inventory: Calculations reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.

3.2 Inherent Limitations

The following limitations to this GHG Verification were noted in evaluation the GHG Assertion:

- The provided activity data was used for fuel and electricity consumption, but activity data was not verified with the original data;
- The provided material consumption/use (i.e., for acetylene, lubricants, explosives, waste water treatment) was used, but was not compared against the original data;
- Fuel energy content was not compared against original technical data sheets;
- Material produced/processed was not compared against original production logs.

3.3 Identified Discrepancies and Resolutions

One (1) immaterial discrepancy was identified, and this discrepancy reached a resolution. **Table 2** provides a summary of issues raised, the response provided by the Responsible Party, and any resulting actions taken to resolve the potential issues.

Table 2: Material and Immaterial Discrepancies Identified

Identified Error, Omission or Misrepresentation	Material/Immaterial	Resolution
Waste Water Treatment data were reported from 2020 and had incorrect calculated emissions.	Immaterial. ~8 tonnes less total CO ₂ e emissions were being reported compared to corrected estimations. (196,704 tCO ₂ e vs. 196,696 tCO ₂ e)	This was resolved by updating the waste water treatment data to 2021 information and correcting the calculations.

4.0 PARTICIPANTS AND QUALIFICATIONS

A summary of the qualifications and experience of the Envirochem assessors who prepared and reviewed this report is as follows:

Farzad Dehkordi, M.Sc. Environmental Engineering, Air Quality Expert

Senior Manager & Partner

Mr. Dehkordi has more than 20 years of experience in various industrial sectors as executive, regulator and consultant. He acquired his master's degree in civil and environmental engineering and has tailored his career to incorporate environmental engineering focusing on air and odour pollution assessment, modelling, and control. Mr. Dehkordi is proficient in air dispersion modelling assessments, air emissions inventory, NPRI & GHG calculations, air and odour monitoring & sampling and data analysis with a variety of tools and software including CALPUFF, CALApps, AERMOD, AERSCREEN, SCREEN3, ArcGIS, SURFER, EPA TANKS, WRPLOT View, MEIT tool, R software, and Python scripting. He is also well versed in air assessment guidelines and regulatory frameworks in Canadian provinces. He has conducted air quality assessment and modelling projects for a variety of facilities including: agricultural operations, composting facilities, wastewater treatment plants, bulk terminals, rendering plants, steel making factories, scrap metal recycling, pulp & paper, wood products, and mining and petroleum & natural gas, both as a team member and as a team leader. Also, he has conducted waste to energy feasibility studies. He is experienced in odour sampling work through a variety of different projects.

Neil Allen, B.Sc., M.Sc., P.G.Dipl.Env.Mngt., P.Ag., EP(EMSLA), EP(CEA), CHSMSA, COR

Senior Environmental Specialist - HSE Assurance and Management Systems

Mr. Allen is a Senior Environmental and Health and Safety Auditor with Envirochem and has over 24 years of consulting experience in Canada, New Zealand, Australia, United States, Africa, and India. He is a Certified Environmental Management System (EMS) Lead Auditor to ISO 14001 [EP(EMSLA)] and Certified Regulatory Compliance Auditor [EP(CEA)] (Health and Safety and Environmental) with ECO Canada / CECAB. He is also a Certified Health and Safety Management System Auditor (CHSMSA) with the Auditing Association of Canada, an ISO 45001 (and former OHSAS 18001) Lead Auditor, and a Certificate of Recognition (COR) Program Safety Management System (SMS) Auditor Certified with the Manufacturing Safety Alliance of BC, the Trucking Safety Council of BC, and Energy Safety Canada. He is also a Certified Towards Sustainable Mining (TSM) Verification Auditor with the Mining Association of Canada (MAC), and a GHG Verification Auditor to ISO 14064-3. For the past 24 years, Neil has specialized in completing EMS Audits and EMS Development and Implementation to ISO 14001:2004 & 2015, Regulatory Compliance Audits (Environmental and Occupational Health and Safety), Green Marine Verification Audits, Environmental Management Frameworks for First Nation Clients, Occupational Health and Safety Management System Audits (COR and ISO 45001 and OHSAS 18001), and Greenhouse Gas (GHG) Verification Audits to ISO 14064-3 for a number of private and government sector Clients in Canada and Internationally.

Alex Jardine, B.Sc.

Environmental Scientist, Air Quality Specialist

Mr. Jardine has more than seven years' experience in the environmental sector and currently serves as Envirochem's air quality Project Manager. He has experience in multi-phase project coordination in many sectors including at various terminals throughout the Vancouver Fraser Port Authority and Metro Vancouver. He has strong analytical skills acquired through his undergraduate studies in chemistry, post-

graduate studies at BCIT (Environmental Engineering), and experience as an analytical laboratory technician. He has experience in air quality monitoring, air permitting, pollution control, and air quality dispersion modelling and general environmental consultancy in British Columbia and the Lower Mainland. He is also proficient in air assessment guidelines and regulatory frameworks at the regional, provincial, federal, and international levels. He has also conducted energy auditing for large industrial clients. He has been involved in several preliminary Green Marine assessment and reviews for bulk commodity terminals. He is well versed in a variety of air quality software including CALPUFF, SCREEN3, WRPLOT, AERMOD, AERSCREEN, MEIT/PEIT tool etc.. Alex has also worked in emissions sectors including mining, composting facilities, cannabis wastewater treatment plants, bulk terminals, rendering plants, shredding facilities, sawmills, and hospitals.

Joshua Nurdjaja, B.A.Sc.

Environmental Engineer (EIT)

Mr. Nurdjaja is an Environmental Engineer-In-Training (EIT), working towards a professional engineering designation. Mr. Nurdjaja has developed a variety of skills throughout his undergraduate studies at UBC, where he completed his bachelor's degree in Chemical Engineering. Involvement with numerous environmental projects has allowed him to further his career in environmental consulting as well, with a specialization in air quality. His experience includes air quality monitoring/sampling, GHG/emissions inventory assessments, fuel lifecycle analysis, air permitting, air/odour management plan development and Aspen Plus modelling. Mr. Nurdjaja has worked in Mining, Pulp & Paper, and Oil & Gas industries at positions ranging from process operator to sample team lead.

Kimberly Walton, MCC, SEMAC

Environmental Scientist

Ms. Walton acquired her Master of Climate Change (MCC) degree at the University of Waterloo, where she established an understanding of climate science, adaptation, and mitigation. She then went on to graduate with an advanced certificate in Sustainable Energy Management (SEMAC) through BCIT. Ms. Walton has developed a variety of skills throughout her studies and work experience, including GHG inventory assessments, energy audits, lifecycle costing, community climate action plans, and climate risk assessments. She is well versed in NPRI and GHG reporting and using air quality software including WRPLOT.

5.0 CONCLUSION

The Envirochem verification team has found no unresolved discrepancies that dispute the belief that the GHG Assertion is not, in all material respects, fairly presented in accordance with the relevant criteria.

As noted in **Section 3.1** above, the verification team created a GHG emissions inventory to confirm that all calculations, units, conversion factors, and parameters were correct. Based on the information that was provided, it has been determined that the final calculation of 196,704 tonnes CO₂e emissions is materially correct, and a fair and accurate representation of the GHG Assertion in accordance with the verification criteria.

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