



SIGDO KOPPERS S.A.

GEI VERIFICATION

SIGDO KOPPERS GROUP



SIGDO KOPPERS S.A.

MAGOTTEAUX GROUP

TÜV Rheinland Inspection, Certification & Testing, S.A.

DECLARES THAT:

Verification **of the organization's Carbon Footprint** has been carried out.

MAGOTTEAUX ANDINO, S.A.

Planta Til-Til; km 37 Panamericana Til Til; Chile

Planta Antofagasta; Av. Iquique 5520; Antofagasta; Chile

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

The Emissions Report (Informe de Emisiones de GEI Magotteaux Andino, SA Planta Til-Til- Antofagasta 2024), dated (March 2025) and ratified by the organization's management, is considered as conforms to the requirements of standard ISO 14064-1:2018/ GHG Protocol for a limited level of assurance in accordance with ISO 14064-3:2019 with the following qualifications.

That the verified tons reflected have been (expression for GHG Protocol):

PLANTA ANTOFAGASTA

	2024
Producción	29.405,00
Emisiones totales (tCO₂e)	86.168,09
Alcance 1	56,30
Alcance 2	2.413,68
Alcance 1+2	2.469,98
Alcance 3	83.698,11

PLANTA TIL TIL

	2024
Producción	44.603,00
Emisiones totales (tCO₂e)	56.158,40
Alcance 1	1.469,80
Alcance 2	11.148,04
Alcance 1+2	12.617,84
Alcance 3	43.540,56

That the verified tons reflected have been (expression for ISO 14064-1:2018):

PLANTA ANTOFAGASTA

			2024
Emisiones totales (tCO₂e)			86.168,09
Emisiones directas (tCO ₂ e)			56,30
Emisiones indirectas por energía importada (tCO ₂ e)			2.413,68
Emisiones indirectas por transporte (tCO ₂ e)			13.355,58
Emisiones indirectas de productos y servicios que se utilizan por la empresa (tCO ₂ e)			69.374,18
Emisiones indirectas asociadas al uso de productos de la empresa (tCO ₂ e)			33,45
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (tCO ₂ e)			934,9
	GHG Protocol	ISO14064	TOTAL
Emisiones totales (tCO₂e)	Alcance	Categoría	86.168,09
Emisiones directas (tCO ₂ e)	1	1	56,30
Emisiones asociadas al consumo de combustibles en las instalaciones (tCO ₂ e)	1.1	1.1	0,00
Emisiones derivadas del propio proceso productivo (tCO ₂ e)	1.2	1.2	37,73
Emisiones asociadas al consumo de gases refrigerantes (tCO ₂ e)	1.2	1.4	0,00
Emisiones asociadas al consumo de combustibles para vehículos y maquinaria de la empresa (tCO ₂ e)	1.3	1.3	18,57
Emisiones indirectas por energía importada (tCO₂e)	2	2	2.413,68
Emisiones indirectas por energía importada (tCO ₂ e)	2.1	2.1	2.413,68
Emisiones indirectas por transporte (tCO₂e)	3	3	13.355,58
Logística de entrada (tCO ₂ e)	3.4	3.1	11.691,43
Viajes de negocios (tCO ₂ e)	3.6	3.2	31,99
Desplazamiento de las personas trabajadoras al centro de trabajo (tCO ₂ e)	3.7	3.3	17,27
Logística de salida, incluido el transporte de residuos (tCO ₂ e)	3.9	3.4	1.614,89
Emisiones indirectas de productos y servicios que se utilizan por la empresa (tCO₂e)	3	4	69.374,18
Productos comprados, como materias primas, consumibles y servicios (tCO ₂ e)	3.1	4.1	67.894,95
Capital de equipamiento e infraestructura (tCO ₂ e)	3.2	4.2	16,10
Emisiones asociadas a la generación de residuos (tCO ₂ e)	3.5	4.3	1.385,91
Emisiones asociadas a bienes alquilados (tCO ₂ e)	3.8	4.4	77,22
Emisiones indirectas asociadas al uso de productos de la empresa (tCO₂e)	3	5	33,45
Emisiones indirectas asociadas al uso de productos de la empresa (tCO ₂ e)	3.12	5.1	33,45
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (tCO₂e)	3	6	934,90
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (tCO ₂ e)	3.3	6.1	934,90

PLANTA TIL TIL

			2024
Emisiones totales (tCO₂e)			56.158,40
Emisiones directas (tCO ₂ e)			1.469,80
Emisiones indirectas por energía importada (tCO ₂ e)			11.148,04
Emisiones indirectas por transporte (tCO ₂ e)			3.082,63
Emisiones indirectas de productos y servicios que se utilizan por la empresa (tCO ₂ e)			35.869,50
Emisiones indirectas asociadas al uso de productos de la empresa (tCO ₂ e)			35,57
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (tCO ₂ e)			4.552,86
	GHG Protocol	ISO14064	TOTAL
Emisiones totales (tCO₂e)	Alcance	Categoría	56.158,40
Emisiones directas (tCO₂e)	1	1	1.469,80
Emisiones asociadas al consumo de combustibles en las instalaciones (tCO ₂ e)	1.1	1.1	1.080,19
Emisiones derivadas del propio proceso productivo (tCO ₂ e)	1.2	1.2	82,90
Emisiones asociadas al consumo de gases refrigerantes (tCO ₂ e)	1.2	1.4	0,00
Emisiones asociadas al consumo de combustibles para vehículos y maquinaria de la empresa (tCO ₂ e)	1.3	1.3	306,71
Emisiones indirectas por energía importada (tCO₂e)	2	2	11.148,04
Emisiones indirectas por energía importada (tCO ₂ e)	2.1	2.1	11.148,04
Emisiones indirectas por transporte (tCO₂e)	3	3	3.082,63
Logística de entrada (tCO ₂ e)	3.4	3.1	1.247,52
Viajes de negocios (tCO ₂ e)	3.6	3.2	534,54
Desplazamiento de las personas trabajadoras al centro de trabajo (tCO ₂ e)	3.7	3.3	354,95
Logística de salida, incluido el transporte de residuos (tCO ₂ e)	3.9	3.4	945,62
Emisiones indirectas de productos y servicios que se utilizan por la empresa (tCO₂e)	3	4	35.869,50
Productos comprados, como materias primas, consumibles y servicios (tCO ₂ e)	3.1	4.1	33.457,84
Capital de equipamiento e infraestructura (tCO ₂ e)	3.2	4.2	330,41
Emisiones asociadas a la generación de residuos (tCO ₂ e)	3.5	4.3	1.980,89
Emisiones asociadas a bienes alquilados (tCO ₂ e)	3.8	4.4	100,36
Emisiones indirectas asociadas al uso de productos de la empresa (tCO₂e)	3	5	35,57
Emisiones indirectas asociadas al uso de productos de la empresa (tCO ₂ e)	3.12	5.1	35,57
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (tCO₂e)	3	6	4.552,86
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (tCO ₂ e)	3.3	6.1	4.552,86

And for the record, it is signed by the verifier and the technical reviewer of the Entity at Barcelona, 24Th March 2025,

MORALES
LOPEZ EVA
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EVA - 38130541Z
Fecha: 2025.04.23
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Ara Morales
Lead Verifier

Almudena
Bouza
Martínez
Firmado digitalmente
por Almudena Bouza
Martínez
Fecha: 2025.05.21
11:23:24 +02'00'

Almudena Bouza
Technical Reviewer

Telephone contact: 91 744 45 00-Area Competences TUV Rheinland Iberica, ICT, S.A.

ANNEX I - Declaration on verification

TÜV Rheinland Inspection, Certification & Testing, S.A.

DECLARES THAT:

Verification **of the organization's Carbon Footprint** has been carried out.

MAGOTTEAUX LIEGE, S.A.

Rue Prés de la Tour, 55; 4051 Chaudfontaine, Belgium

Rue de la Métal, 24; 4870 Trooz, Belgium

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

The Emissions Report (Magotteaux LIEGE SA GHG Emissions Report 2024), dated (March 2025) and ratified by the organization's management, is deemed to have been conforms to the requirements of standard ISO 14064-1:2018/ GHG Protocol Accounting and Reporting Standard for a limited level of assurance in accordance with ISO 14064-3:2019 with the following qualifications.

That the verified tons reflected have been (expression for GHG Protocol):

Considering Market-based approach for scope 2/category 2.1:

	2024	2023	2024 vs 2023	2022	2024 vs 2022
Pruduction	1.662,40	1.840,90	-9,70%	3.146,00	-47,16%
Total emissions (TnCO₂e)	18.802,14	21.098,77	-10,89%	21.401,45	-12,15%
Scope 1	1.903,64	1.670,97	13,92%	2.132,71	-10,74%
Scope 2	0,00	0,00	0,00	1.524,58	-100,00%
Scope 1+2	1.903,64	1.670,97	13,92%	3.657,29	-110,74%
Scope 3	16.898,50	19.427,80	-13,02%	17.744,16	-4,77%

Considering Location-based approach for scope 2/category 2.1:

	2024
SCOPE 1	1903,64
SCOPE 2	986,00
SCOPE 3	16.898,50
TOTAL	19.788,14

That the verified tons reflected have been (expression for ISO 14064-1:2018),

Considering Market-based approach for scope 2/category 2.1:

	2024
Total emissions (TnCO2)	18.802,14
Direct emissions (TnCO2)	1.903,64
Indirect emissions from imported energy (TnCO2)	0,00
Indirect emissions from transport (TnCO2)	1.209,31
Indirect emissions from products and services used by the company (TnCO2)	14.894,65
Indirect emissions associated with the use of company products (TnCO2)	271,45
Indirect emissions associated with production/transportation and energy and fuel losses (TnCO2)	523,09

	GHG Protocol	ISO14064	TOTAL
Total emissions (TnCO2e)	Scope	Category	18.802,14
Direct emissions (TnCO2e)	1	1	1.903,64
Emissions associated with the consumption of fuels in the facilities (TnCO2e)	1.1	1.1	1.736,00
Emissions derived from the production process itself (TnCO2e)	1.2	1.2	107,70
Emissions associated with the consumption refrigerant gases (TnCO2e)	1.2	1.4	0,00
Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO2e)	1.3	1.3	59,94
Indirect emissions from imported energy (TnCO2e)	2	2	0,00
Indirect emissions from imported energy (TnCO2e)	2.1	2.1	0,00
Indirect emissions due to transport (TnCO2e)	3	3	1.209,31
Upstream logistics (TnCO2e)	3.4	3.1	365,41
Business travels (TnCO2e)	3.6	3.2	3
Employee commuting (TnCO2e)	3.7	3.3	104,98
Downstream logistics, including waste transportation (TnCO2e)	3.9	3.4	735,92
Indirect emissions from products and services used by the company (TnCO2e)	4	4	14.894,65
Purchased products, such as raw materials, consumables and services (TnCO2e)	3.1	4.1	10.977,21
Equipment and infrastructure (TnCO2e)	3.2	4.2	3.132,29
Emissions associated with waste generation (TnCO2e)	3.5	4.3	769,67
Emissions associated with leased assets (TnCO2e)	3.8	4.4	15,484
Indirect emissions associated with the use of the company's products (TnCO2e)	5	5	271,45
Indirect emissions associated with the use of the company's products (TnCO2e)	3.12	5.1	271,45
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO2e)	6	6	523,09
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO2e)	3.3	6.1	523,09

Considering Location-based approach for scope 2/category 2.1:

2024	Belgium
Total emissions (tCO2e)	19.788,14
Direct emissions (tCO2e)	1.903,64
1.1. Emissions associated with the consumption of fuels in the facilities (tCO2e)	1.736,00
1.2. Emissions derived from the production process itself (tCO2e)	107,70
1.2. Emissions derived from the consumption of refrigerant gases (tCO2e)	0,00
1.3. Emissions associated with the consumption of fuels for company vehicles and machinery (tCO2e)	59,94
Indirect emissions from imported energy (tCO2e)	986,00
2.1. Indirect emissions from imported energy (tCO2e)	986,00
2.2. Indirect emissions from STEAM	0,00
Indirect emissions due to transport (tCO2e)	1.209,31
3.4. Upstream logistics (tCO2e)	365,41
3.6. Business travels (tCO2e)	3,00
3.7. Employee commuting (tCO2e)	104,98
3.9. Downstream logistics, including waste transportation (tCO2e)	735,92
Indirect emissions from products and services used by the company (tCO2e)	14.894,65
3.1. Purchased products, such as raw materials, consumables and services (tCO2e)	10.977,21
3.2. Equipment and infrastructure (tCO2e)	3.132,29
3.5. Emissions associated with waste generation (tCO2e)	769,67
3.8. Emissions associated with leased assets (tCO2e)	15,48
Indirect emissions associated with the use of the company's products (tCO2e)	271,45
3.12. Indirect emissions associated with the use of the company's products (tCO2e)	271,45
Indirect emissions associated with production/transport and losses of energy and fuels (tCO2e)	523,09
3.3. Indirect emissions associated with production/transport and losses of energy and fuels (tCO2e)	561,00

And for the record, it is signed by the verifier and the technical reviewer of the Entity at Barcelona, 24Th March 2025,



Susanna Cabrera
Lead Verifier

Almudena
Bouza
Martínez



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Almudena Bouza
Technical Reviewer

Telephone contact: 91 744 45 00-Area Competences TÜV Rheinland Iberica, ICT, S.A.

ANNEX I - Declaration on verification

TÜV Rheinland Inspection, Certification & Testing, S.A.

DECLARES THAT:

Verification **of the organization's Carbon Footprint** has been carried out.

MAGOTTEAUX, S.A.

1 Bis Rue du General Sarrail

08320 Aubrives; France

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

The Emissions Report (Magotteaux Aubrives GHG Emissions 2024), dated (March 2025) and ratified by the organization's management, is deemed to have been conforms to the requirements of standard ISO 14064-1:2018/ GHG Protocol Accounting and Reporting Standard for a limited level of assurance in accordance with ISO 14064-3:2019 with the following qualifications.

That the verified tons reflected have been (expression for GHG Protocol):

	2024
Pruduction	5.619,00
Total emissions (TnCO2e)	15.738,88
Scope 1	892,63
Scope 2	506,89
Scope 1+2	1.399,52
Scope 3	14.339,36

That the verified tons reflected have been (expression for ISO 14064-1:2018):

			2024
Total emissions (TnCO2)			15.738,88
Direct emissions (TnCO2)			892,63
Indirect emissions from imported energy (TnCO2)			506,89
Indirect emissions from transport (TnCO2)			1.519,53
Indirect emissions from products and services used by the company (TnCO2)			12.471,93
Indirect emissions associated with the use of company products (TnCO2)			21,83
Indirect emissions associated with production/transportation and energy and fuel losses (TnCO2)			326,07
	GHG Protocol	ISO14064	TOTAL
Total emissions (TnCO2e)	Scope	Category	15.738,88
Direct emissions (TnCO2e)	1	1	892,63
Emissions associated with the consumption of fuels in the facilities (TnCO2e)	1.1	1.1	749,25
Emissions derived from the production process itself (TnCO2e)	1.2	1.2	68,88
Emissions associated with the consumption refrigerant gases (TnCO2e)	1.2	1.4	0
Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO2e)	1.3	1.3	74,5
Indirect emissions from imported energy (TnCO2e)	2	2	506,89
Indirect emissions from imported energy (TnCO2e)	2.1	2.1	506,89
Indirect emissions due to transport (TnCO2e)	3	3	1.519,53
Upstream logistics (TnCO2e)	3.4	3.1	789,02
Business travels (TnCO2e)	3.6	3.2	5,74
Employee commuting (TnCO2e)	3.7	3.3	160,37
Downstream logistics, including waste transportation (TnCO2e)	3.9	3.4	564,4
Indirect emissions from products and services used by the company (TnCO2e)	3	4	12.471,93
Purchased products, such as raw materials, consumables and services (TnCO2e)	3.1	4.1	10.992,46
Equipment and infrastructure (TnCO2e)	3.2	4.2	780,78
Emissions associated with waste generation (TnCO2e)	3.5	4.3	698,69
Emissions associated with leased assets (TnCO2e)	3.8	4.4	0
Indirect emissions associated with the use of the company's products (TnCO2e)	3	5	21,83
Indirect emissions associated with the use of the company's products (TnCO2e)	3.12	5.1	21,83
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO2e)	3	6	326,07
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO2e)	3.3	6.1	326,07

And for the record, it is signed by the verifier and the technical reviewer of the Entity at Barcelona, 24Th March 2025,


Susanna Cabrera
Lead Verifier

Almudena Bouza Martínez
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Almudena Bouza
Technical Reviewer

Telephone contact: 91 744 45 00-Area Competences TUV Rheinland Iberica, ICT, S.A.

ANNEX I - Declaration on verification

TÜV Rheinland Inspection, Certification & Testing, S.A.

DECLARES THAT:

Verification **of the organization's Carbon Footprint** has been carried out.

MAGOTTEAUX INDUSTRIES PRIVATE LIMITED

Rajkot; India

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

The Emissions Report (Magotteaux Industries PVT LTC, Rajkot. GHG Emissions Report 2024), dated (March 2025) and ratified by the organization's management, is deemed to have been conforms to the requirements of standard ISO 14064-1:2018/ GHG Protocol Accounting and Reporting Standard for a limited level of assurance in accordance with ISO 14064-3:2019 with the following qualifications.

That the verified tons reflected have been (expression for GHG Protocol-market based):

	2024
Production	5.611,70
Total emissions (tCO₂e)	27.185,99
Scope 1	3.769,39
Scope 2	2.003,35
Scope 1+2	5.772,74
Scope 3	21.413,25

That the verified tons reflected have been (expression for ISO 14064-1:2018-market based):

			2024
Total emissions (tCO₂e)			27.185,99
Direct emissions (tCO ₂ e)			3.769,39
Indirect emissions from imported energy (tCO ₂ e)			2.003,35
Indirect emissions from transport (tCO ₂ e)			1.833,80
Indirect emissions from products and services used by the company (tCO ₂ e)			13.853,89
Indirect emissions associated with the use of company products (tCO ₂ e)			64,98
Indirect emissions associated with production/transportation and energy and fuel losses (tCO ₂ e)			5.660,58
	GHG Protocol	ISO14064	TOTAL
Total emissions (tCO₂e)	Scope	Category	27.185,99
Direct emissions (TnCO₂e)	1	1	3.769,39
Emissions associated with the consumption of fuels in the facilities (TnCO ₂ e)	1.1	1.1	3.043,28
Emissions derived from the production process itself (TnCO ₂ e)	1.2	1.2	704,16
Emissions associated with the consumption refrigerant gases (TnCO ₂ e)	1.2	1.4	6,23
Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO ₂ e)	1.3	1.3	15,72
Indirect emissions from imported energy (TnCO₂e)	2	2	2.003,35
Indirect emissions from imported energy (TnCO ₂ e)	2.1	2.1	2.003,35
Indirect emissions due to transport (TnCO₂e)	3	3	1.833,80
Upstream logistics (TnCO ₂ e)	3.4	3.1	330,39
Business travels (TnCO ₂ e)	3.6	3.2	118,36
Employee commuting (TnCO ₂ e)	3.7	3.3	77,71
Downstream logistics, including waste transportation (TnCO ₂ e)	3.9	3.4	1.307,34
Indirect emissions from products and services used by the company (TnCO₂e)	3	4	13.853,89
Purchased products, such as raw materials, consumables and services (TnCO ₂ e)	3.1	4.1	11.131,92
Equipment and infrastructure (TnCO ₂ e)	3.2	4.2	395,34
Emissions associated with waste generation (TnCO ₂ e)	3.5	4.3	1.728,84
Emissions associated with leased assets (TnCO ₂ e)	3.8	4.4	597,79
Indirect emissions associated with the use of the company's products (TnCO₂e)	3	5	64,98
Indirect emissions associated with the use of the company's products (TnCO ₂ e)	3.12	5.1	64,98
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO₂e)	3	6	5.660,58
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO ₂ e)	3.3	6.1	5.660,58

And for the record, it is signed by the verifier and the technical reviewer of the Entity at Barcelona, 24Th March 2025,

Almudena Bouza Martínez
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Pradeep Nimonkar
 Lead Verifier

Almudena Bouza
 Technical Reviewer

Telephone contact: 91 744 45 00-Area Competences TUV Rheinland Iberica, ICT, S.A.

TÜV Rheinland Inspection, Certification & Testing, S.A.

DECLARES THAT:

Verification **of the organization's Carbon Footprint** has been carried out.

MAGOTTEAUX S.A. DE CV

Av. San Nicolás 2660 Nte., Col. Victoria

Monterrey, NL, Mexico CP 64520

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

The Emissions Report (Magotteaux SA de CV GHG emissions report 2024), dated (March 2025) and ratified by the organization's management, is deemed to have been conforms to the requirements of standard ISO 14064-1:2018/ GHG Protocol Accounting and Reporting Standard for a limited level of assurance in accordance with ISO 14064-3:2019 with the following qualifications.

That the verified tons reflected have been (expression for GHG Protocol):

	2024
Pruduction	5.708,50
Total emissions (TnCO2e)	26.910,50
Scope 1	3.977,11
Scope 2	5.415,43
Scope 1+2	9.392,54
Scope 3	17.517,96

That the verified tons reflected have been (expression for ISO 14064-1:2018):

			2024
Total emissions (TnCO2)			26.910,50
Direct emissions (TnCO2)			3.977,11
Indirect emissions from imported energy (TnCO2)			5.415,43
Indirect emissions from transport (TnCO2)			2.212,12
Indirect emissions from products and services used by the company (TnCO2)			13.352,87
Indirect emissions associated with the use of company products (TnCO2)			1,0815536
Indirect emissions associated with production/transportation and energy and fuel losses (TnCO2)			1951,89
	GHG Protocol	ISO14064	TOTAL
Total emissions (TnCO2e)	Alcance	Categoría	26.910,50
Direct emissions (TnCO2e)	1	1	3.977,11
Emissions associated with the consumption of fuels in the facilities (TnCO2e)	1.1	1.1	3.854,79
Emissions derived from the production process itself (TnCO2e)	1.2	1.2	27,00
Emissions associated with the consumption refrigerant gases (TnCO2e)	1.2	1.4	0,00
Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO2e)	1.3	1.3	95,32
Indirect emissions from imported energy (TnCO2e)	2	2	5.415,43
Indirect emissions from imported energy (TnCO2e)	2.1	2.1	5.415,43
Indirect emissions due to transport (TnCO2e)	3	3	2.212,12
Upstream logistics (TnCO2e)	3.4	3.1	430,96
Business travels (TnCO2e)	3.6	3.2	87,26
Employee commuting (TnCO2e)	3.7	3.3	260,26
Downstream logistics, including waste transportation (TnCO2e)	3.9	3.4	1.433,64
Indirect emissions from products and services used by the company (TnCO2e)	3	4	13.352,87
Purchased products, such as raw materials, consumables and services (TnCO2e)	3.1	4.1	12.273,60
Equipment and infrastructure (TnCO2e)	3.2	4.2	723,61
Emissions associated with waste generation (TnCO2e)	3.5	4.3	355,66
Emissions associated with leased assets (TnCO2e)	3.8	4.4	0,00
Indirect emissions associated with the use of the company's products (TnCO2e)	3	5	1,08
Indirect emissions associated with the use of the company's products (TnCO2e)	3.12	5.1	1,08
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO2e)	3	6	1.951,89
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO2e)	3.3	6.1	1.951,89

And for the record, it is signed by the verifier and the technical reviewer of the Entity at Barcelona, 24th March 2025,

MORALES
LOPEZ EVA
-
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MORALES LOPEZ
EVA - 38130541Z
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Ara Morales
Lead Verifier

Almuden
a Bouza
Martínez

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Bouza Martínez
Fecha: 2025.05.21 11:24:30 +02'00'

Almudena Bouza
Technical Reviewer

Telephone contact: 91 744 45 00-Area Competences TUV Rheinland Iberica, ICT, S.A.

ANNEX I - Declaration on verification

TÜV Rheinland Inspection, Certification & Testing, S.A.

DECLARES THAT:

Verification **of the organization's Carbon Footprint** has been carried out.

MAGOTTEAUX NAVARRA, S.A.

C/Bentalde, nº4

31810 Urdain (Navarra); Spain

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

The Emissions Report (Informe de Emisiones de Gases de Efecto Invernadero Magotteaux Navarra 2024), dated (March 2025) and ratified by the organization's management, is deemed to have been conforms to the requirements of standard ISO 14064-1:2018/ GHG Protocol Accounting and Reporting Standard for a limited level of assurance in accordance with ISO 14064-3:2019 with the following qualifications.

That the verified tons reflected have been (expression for GHG Protocol)

Considering Market-based approach for scope 2/category 2.1:

Emisiones totales (tCO₂e)	24.718,69	
Alcance 1	1.943,60	7,86%
Alcance 2	0,00	0,00%
Alcance 3	22.775,09	92,14%

Considering Location-based approach for scope 2/category 2.1:

	2024
SCOPE 1	1.943,60
SCOPE 2	3.807,06
SCOPE 3	22.908,96
TOTAL	28.659,62

That the verified tons reflected have been (expression for ISO 14064-1:2018)

Considering Market-based approach for scope 2/category 2.1:

	2024
Emisiones totales (tCO₂e)	24.718,69
Emisiones directas (tCO ₂ e)	1.943,60
Emisiones indirectas por energía importada (tCO ₂ e)	0,00
Emisiones indirectas por transporte (tCO ₂ e)	5.179,13
Emisiones indirectas de productos y servicios que se utilizan por la empresa (tCO ₂ e)	16.678,62
Emisiones indirectas asociadas al uso de productos de la empresa (tCO ₂ e)	113,21
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (tCO ₂ e)	804,13

	GHG Protocol	ISO14064	TOTAL
Emisiones totales (tCO₂e)	Alcance	Categoría	24.718,69
Emisiones directas (tCO ₂ e)	1	1	1.943,60
Emisiones asociadas al consumo de combustibles en las instalaciones (tCO ₂ e)	1.1	1.1	1.840,75
Emisiones derivadas del propio proceso productivo (tCO ₂ e)	1.2	1.2	23,85
Emisiones asociadas al consumo de gases refrigerantes (tCO ₂ e)	1.2	1.4	3,81
Emisiones asociadas al consumo de combustibles para vehículos y maquinaria de la empresa (tCO ₂ e)	1.3	1.3	75,19
Emisiones indirectas por energía importada (tCO ₂ e)	2	2	0,00
Emisiones indirectas por energía importada (tCO ₂ e)	2.1	2.1	0,00
Emisiones indirectas por transporte (tCO ₂ e)	3	3	5.179,13
Logística de entrada (tCO ₂ e)	3.4	3.1	1.105,95
Viajes de negocios (tCO ₂ e)	3.6	3.2	17,64
Desplazamiento de las personas trabajadoras al centro de trabajo (tCO ₂ e)	3.7	3.3	152,47
Logística de salida, incluido el transporte de residuos (tCO ₂ e)	3.9	3.4	3.903,07
Emisiones indirectas de productos y servicios que se utilizan por la empresa (tCO ₂ e)	3	4	16.678,62
Productos comprados, como materias primas, consumibles y servicios (tCO ₂ e)	3.1	4.1	15.330,68
Capital de equipamiento e infraestructura (tCO ₂ e)	3.2	4.2	651,42
Emisiones asociadas a la generación de residuos (tCO ₂ e)	3.5	4.3	696,52
Emisiones asociadas a bienes alquilados (tCO ₂ e)	3.8	4.4	0
Emisiones indirectas asociadas al uso de productos de la empresa (tCO ₂ e)	3	5	113,21
Emisiones indirectas asociadas al uso de productos de la empresa (tCO ₂ e)	3.12	5.1	113,21
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (tCO ₂ e)	3	6	804,13
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (tCO ₂ e)	3.3	6.1	804,13

Considering Location-based approach for scope 2/category 2.1:

2024	Spain
Total emissions (tCO₂e)	28.659,62
Direct emissions (tCO₂e)	1.943,60
1.1. Emissions associated with the consumption of fuels in the facilities (tCO ₂ e)	1.840,75
1.2. Emissions derived from the production process itself (tCO ₂ e)	23,85
1.2. Emissions derived from the consumption of refrigerant gases (tCO ₂ e)	3,81
1.3. Emissions associated with the consumption of fuels for company vehicles and machinery (tCO ₂ e)	75,19
Indirect emissions from imported energy (tCO₂e)	3.807,06
2.1. Indirect emissions from imported energy (tCO ₂ e)	3.807,06
2.2. Indirect emissions from STEAM	0,00
Indirect emissions due to transport (tCO₂e)	5.179,13
3.4. Upstream logistics (tCO ₂ e)	1.105,95
3.6. Business travels (tCO ₂ e)	17,64
3.7. Employee commuting (tCO ₂ e)	152,47
3.9. Downstream logistics, including waste transportation (tCO ₂ e)	3.903,07
Indirect emissions from products and services used by the company (tCO₂e)	16.678,62
3.1. Purchased products, such as raw materials, consumables and services (tCO ₂ e)	15.330,68
3.2. Equipment and infrastructure (tCO ₂ e)	651,42
3.5. Emissions associated with waste generation (tCO ₂ e)	696,52
3.8. Emissions associated with leased assets (tCO ₂ e)	0,00
Indirect emissions associated with the use of the company's products (tCO₂e)	113,21
3.12. Indirect emissions associated with the use of the company's products (tCO ₂ e)	113,21
Indirect emissions associated with production/transport and losses of energy and fuels (tCO₂e)	938,00
3.3. Indirect emissions associated with production/transport and losses of energy and fuels (tCO ₂ e)	938,00

And for the record, it is signed by the verifier and the technical reviewer of the Entity at Barcelona, 24Th March 2025,


Susanna Cabrera
Lead Verifier

**Almudena
Bouza
Martínez**



Firmado digitalmente
por Almudena Bouza
Martínez
Fecha: 2025.05.12
18:12:28 +02'00'

Almudena Bouza
Technical Reviewer

Telephone contact: 91 744 45 00-Area Competences TÜV Rheinland Iberica, ICT, S.A.

ANNEX I - Declaration on verification

TÜV Rheinland Inspection, Certification & Testing, S.A.

DECLARES THAT:

Verification **of the organization's Carbon Footprint** has been carried out.

MAGOTTEAUX CO, LTD

14 Moo 3, Suwannasorn Road Bualoy; Nongkae Saraburi 18230 Thainland
9 Moo 5, Nongkhontee-Sanpradu Road, Huapluak Saohai saraburi 18160 Thainland

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

The Emissions Report (Magotteaux CO LTD. GHG Emissions Report 2024), dated (March 2025) and ratified by the organization's management, is deemed to have been conforms to the requirements of standard ISO 14064-1:2018/ GHG Protocol Accounting and Reporting Standard for a limited level of assurance in accordance with ISO 14064-3:2019 with the following qualifications.

That the verified tons reflected have been (expression for GHG Protocol):

MCL 1-2

	2024
Production (Tn)	67.889,90
Total emissions (tCO₂e)	175.377,40
Scope 1	10.211,23
Scope 2	35.333,65
Scope 1+2	45.544,88
Scope 3	129.832,52

MCL 3

	2024
Production (Tn)	41.875,00
Total emissions (tCO₂e)	109.600,13
Scope 1	7.176,14
Scope 2	21.767,15
Scope 1+2	28.943,29
Scope 3	80.656,84

MCL 4

	2024
Production (Tn)	2.663,00
Total emissions (tCO₂e)	19.400,05
Scope 1	2.002,43
Scope 2	4.139,17
Scope 1+2	6.141,60
Scope 3	13.258,45

That the verified tons reflected have been (expression for ISO 14064-1:2018):

MCL1-2

			2024
Total emissions (tCO₂e)			175.377,40
Direct emissions (tCO ₂ e)			10.211,23
Indirect emissions from imported energy (tCO ₂ e)			35.333,65
Indirect emissions from transport (tCO ₂ e)			26.257,82
Indirect emissions from products and services used by the company (tCO ₂ e)			91.946,77
Indirect emissions associated with the use of company products (tCO ₂ e)			571,33
Indirect emissions associated with production/transportation and energy and fuel losses (tCO ₂ e)			11056,6
	GHG Protocol	ISO14064	TOTAL
Total emissions (tCO₂e)	Scope	Category	175.377,40
Direct emissions (TnCO₂e)	1	1	10.211,23
Emissions associated with the consumption of fuels in the facilities (TnCO ₂ e)	1.1	1.1	9.412,55
Emissions derived from the production process itself (TnCO ₂ e)	1.2	1.2	347,00
Emissions associated with the consumption refrigerant gases (TnCO ₂ e)	1.2	1.4	129,48
Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO ₂ e)	1.3	1.3	322,2
Indirect emissions from imported energy (TnCO₂e)	2	2	35.333,65
Indirect emissions from imported energy (TnCO ₂ e)	2.1	2.1	35.333,65
Indirect emissions due to transport (TnCO₂e)	3	3	26.257,82
Upstream logistics (TnCO ₂ e)	3.4	3.1	6.252,20
Business travels (TnCO ₂ e)	3.6	3.2	14,87
Employee commuting (TnCO ₂ e)	3.7	3.3	230,29
Downstream logistics, including waste transportation (TnCO ₂ e)	3.9	3.4	19.760,46
Indirect emissions from products and services used by the company (TnCO₂e)	3	4	91.946,77
Purchased products, such as raw materials, consumables and services (TnCO ₂ e)	3.1	4.1	86.377,96
Equipment and infrastructure (TnCO ₂ e)	3.2	4.2	1.549,80
Emissions associated with waste generation (TnCO ₂ e)	3.5	4.3	3.818,73
Emissions associated with leased assets (TnCO ₂ e)	3.8	4.4	200,28
Indirect emissions associated with the use of the company's products (TnCO₂e)	3	5	571,33
Indirect emissions associated with the use of the company's products (TnCO ₂ e)	3.12	5.1	571,33
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO₂e)	3	6	11056,6
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO ₂ e)	3.3	6.1	11.056,60

MCL3

			2024
Total emissions (tCO₂e)			109.600,13
Direct emissions (tCO ₂ e)			7.176,14
Indirect emissions from imported energy (tCO ₂ e)			21.767,15
Indirect emissions from transport (tCO ₂ e)			13.044,53
Indirect emissions from products and services used by the company (tCO ₂ e)			60.468,31
Indirect emissions associated with the use of company products (tCO ₂ e)			213,08
Indirect emissions associated with production/transportation and energy and fuel losses (tCO ₂ e)			6930,92
	GHG Protocol	ISO14064	TOTAL
Total emissions (tCO₂e)	Scope	Category	109.600,13
Direct emissions (TnCO ₂ e)	1	1	7.176,14
Emissions associated with the consumption of fuels in the facilities (TnCO ₂ e)	1.1	1.1	6.306,88
Emissions derived from the production process itself (TnCO ₂ e)	1.2	1.2	205,00
Emissions associated with the consumption refrigerant gases (TnCO ₂ e)	1.2	1.4	354,49
Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO ₂ e)	1.3	1.3	309,77
Indirect emissions from imported energy (TnCO ₂ e)	2	2	21.767,15
Indirect emissions from imported energy (TnCO ₂ e)	2.1	2.1	21.767,15
Indirect emissions due to transport (TnCO ₂ e)	3	3	13.044,53
Upstream logistics (TnCO ₂ e)	3.4	3.1	2.028,22
Business travels (TnCO ₂ e)	3.6	3.2	21,6
Employee commuting (TnCO ₂ e)	3.7	3.3	154,8906948
Downstream logistics, including waste transportation (TnCO ₂ e)	3.9	3.4	10.839,82
Indirect emissions from products and services used by the company (TnCO ₂ e)	3	4	60.468,31
Purchased products, such as raw materials, consumables and services (TnCO ₂ e)	3.1	4.1	56.216,46
Equipment and infrastructure (TnCO ₂ e)	3.2	4.2	1.164,80
Emissions associated with waste generation (TnCO ₂ e)	3.5	4.3	2.961,75
Emissions associated with leased assets (TnCO ₂ e)	3.8	4.4	125,30
Indirect emissions associated with the use of the company's products (TnCO ₂ e)	3	5	213,08
Indirect emissions associated with the use of the company's products (TnCO ₂ e)	3.12	5.1	213,08
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO ₂ e)	3	6	6930,92
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO ₂ e)	3.3	6.1	6.930,92

MCL4

			2024
Total emissions (tCO₂e)			19.400,05
Direct emissions (tCO ₂ e)			2.002,43
Indirect emissions from imported energy (tCO ₂ e)			4.139,17
Indirect emissions from transport (tCO ₂ e)			1.310,28
Indirect emissions from products and services used by the company (tCO ₂ e)			10.538,43
Indirect emissions associated with the use of company products (tCO ₂ e)			3,87
Indirect emissions associated with production/transportation and energy and fuel losses (tCO ₂ e)			1405,87
	GHG Protocol	ISO14064	TOTAL
Total emissions (tCO₂e)	Scope	Category	19.400,05
Direct emissions (TnCO ₂ e)	1	1	2.002,43
Emissions associated with the consumption of fuels in the facilities (TnCO ₂ e)	1.1	1.1	1.629,41
Emissions derived from the production process itself (TnCO ₂ e)	1.2	1.2	58,00
Emissions associated with the consumption refrigerant gases (TnCO ₂ e)	1.2	1.4	220,73
Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO ₂ e)	1.3	1.3	94,29
Indirect emissions from imported energy (TnCO ₂ e)	2	2	4.139,17
Indirect emissions from imported energy (TnCO ₂ e)	2.1	2.1	4.139,17
Indirect emissions due to transport (TnCO ₂ e)	3	3	1.310,28
Upstream logistics (TnCO ₂ e)	3.4	3.1	232,82
Business travels (TnCO ₂ e)	3.6	3.2	8,75
Employee commuting (TnCO ₂ e)	3.7	3.3	185,901249
Downstream logistics, including waste transportation (TnCO ₂ e)	3.9	3.4	882,81
Indirect emissions from products and services used by the company (TnCO ₂ e)	3	4	10.538,43
Purchased products, such as raw materials, consumables and services (TnCO ₂ e)	3.1	4.1	9.684,98
Equipment and infrastructure (TnCO ₂ e)	3.2	4.2	356,3
Emissions associated with waste generation (TnCO ₂ e)	3.5	4.3	434,85
Emissions associated with leased assets (TnCO ₂ e)	3.8	4.4	62,3
Indirect emissions associated with the use of the company's products (TnCO ₂ e)	3	5	3,87
Indirect emissions associated with the use of the company's products (TnCO ₂ e)	3.12	5.1	3,87
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO ₂ e)	3	6	1405,87
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO ₂ e)	3.3	6.1	1.405,87

And for the record, it is signed by the verifier and the technical reviewer of the Entity at Barcelona, 24th March 2025,

Almudena Bouza Martínez
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Fecha: 2025.05.23 13:49:19 +02'00'

Pradeep Nimonkar
Lead Verifier

Almudena Bouza
Technical Reviewer



Statement on verification

TÜV Rheinland Inspection, Certification&Testing, S.A.

DECLARES THAT:

Verification **of the organisation's Carbon Footprint** has been carried out.

Magotteaux Alloyed Material (Wuxi) Co., Ltd.

No 33, Xihong Rd, Meicun, Xinwu District, Wuxi, China

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

It is considered that the Report of Issues (the Carbon Footprint report - Magotteaux Alloyed Material (Wuxi) Co., Ltd. - 2024), of (2025-02-01) ratified by the Management of the organization is in conformity with the requirements of standard ISO 14064-part 1:2018 /GHG Protocol for a reasonable level of assurance according to ISO 14064-3:2019.

That the verified tonnes reflected have been for PROTOCOL GHG in market based

Scope 1	2.136,61
Scope 2	3.373,23
Scope 3	17.305,23
Total tCOe	22.815,07

That the verified tonnes reflected have been for ISO 14064-1:2018 in market based

Emissions and removals	tCO ₂ e
Direct GHG -Emissions associated with the consumption of fuels in the facilities (TnCO ₂ e) -Emissions derived from the production process itself (TnCO ₂ e) -Emissions associated with the consumption refrigerant gases (TnCO ₂ e) -Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO ₂ e)	2.136,61
Indirect emissions from imported energy	3.373,23
Indirect emissions from transport	1.747,20
Indirect emissions by products used by the organisation	13.856,42
Indirect emissions from use of the organisation's products	0,88
Indirect emissions from other sources	1.700,73
Indirect GHG	20.678,46
Total	22.815,07

Customer	Standard(s)
Magotteaux Alloyed Material (Wuxi) Co., Ltd	14064-part 1:year/GHG Protocol

That the verified tonnes reflected have been for PROTOCOL GHG) In location based

Scope 1	2.136,61
Scope 2	8.391,97
Scope 3	17.305,23
Total tCOe	27.833,18

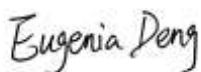
That the verified tonnes reflected have been for ISO 14064-1:2018 In location based

Emissions and removals	tCO ₂ e
Direct GHG -Emissions associated with the consumption of fuels in the facilities (TnCO ₂ e) -Emissions derived from the production process itself (TnCO ₂ e) -Emissions associated with the consumption refrigerant gases (TnCO ₂ e) -Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO ₂ e)	2.136,61
Indirect emissions from imported energy	8.391,97
Indirect emissions from transport	1.747,20
Indirect emissions by products used by the organisation	13.856,42
Indirect emissions from use of the organisation's products	0,88
Indirect emissions from other sources	1.700,73
Indirect GHG	20.678,46
Total	27.833,18

And for the record, it is signed by the verifier and the technical reviewer of the Entity at

Guangzhou, 2025-03-18

surname: Eugenia Deng



Verifier Chief Technical Reviewer

TÜV Rheinland Inspection, Certification & Testing, S.A.

DECLARES THAT:

Verification **of the organization's Carbon Footprint** has been carried out.

MAGOTTEAUX BRASIL, LTDA

**Av. General David Sarnoff 1221, Terreo, Cidade Industrial
Contagem – MG. 32210 -110, Brasil**

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

The Emissions Report (Informe_GEI_Magotteaux Brasil 2024, year 2024), dated (March 2025) and ratified by the organization's management, is deemed to have been conforms to the requirements of standard ISO 14064-1:2018/ GHG Protocol Accounting and Reporting Standard for a limited level of assurance in accordance with ISO 14064-3:2019 with the following qualifications.

That the verified tons reflected have been (expression for GHG Protocol):

	2024
Producción	65.871,00
Emisiones totales (TnCO₂e)	189.441,29
Alcance 1	8.981,74
Alcance 2	4.992,65
Alcance 1+2	13.974,38
Alcance 3	175.466,91

That the verified tons reflected have been (expression for ISO 14064-1:2018):

			2024
Emisiones totales (TnCO₂e)			189,441,29
Emisiones directas (TnCO ₂ e)			8.981,74
Emisiones indirectas por energía importada (TnCO ₂ e)			4.992,65
Emisiones indirectas por transporte (TnCO ₂ e)			27.486,81
Emisiones indirectas de productos y servicios que se utilizan por la empresa (TnCO ₂ e)			143.567,30
Emisiones indirectas asociadas al uso de productos de la empresa (TnCO ₂ e)			190,94
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (TnCO ₂ e)			4.221,86
	GHG Protocol	ISO14064	TOTAL
Emisiones totales (TnCO₂e)	Alcance	Categoría	189,441,29
Emisiones directas (tCO ₂ e)	1	1	8.981,74
Emisiones asociadas al consumo de combustibles en las instalaciones (tCO ₂ e)	1.1	1.1	8.267,79
Emisiones derivadas del propio proceso productivo (tCO ₂ e)	1.2	1.2	163,10
Emisiones asociadas al consumo de gases refrigerantes (tCO ₂ e)	1.2	1.4	156,73
Emisiones asociadas al consumo de combustibles para vehículos y maquinaria de la empresa (tCO ₂ e)	1.3	1.3	394,12
Emisiones indirectas por energía importada (tCO₂e)	2	2	4.992,65
Emisiones indirectas por energía importada (tCO ₂ e)	2.1	2.1	4.992,65
Emisiones indirectas por transporte (tCO₂e)	3	3	27.486,81
Logística de entrada (tCO ₂ e)	3.4	3.1	11.736,34
Viajes de negocios (tCO ₂ e)	3.6	3.2	100,79
Desplazamiento de las personas trabajadoras al centro de trabajo (tCO ₂ e)	3.7	3.3	188,77
Logística de salida, incluido el transporte de residuos (tCO ₂ e)	3.9	3.4	15.460,91
Emisiones indirectas de productos y servicios que se utilizan por la empresa (tCO₂e)	3	4	143.567,30
Productos comprados, como materias primas, consumibles y servicios (tCO ₂ e)	3.1	4.1	134.966,28
Capital de equipamiento e infraestructura (tCO ₂ e)	3.2	4.2	1.260,06
Emisiones asociadas a la generación de residuos (tCO ₂ e)	3.5	4.3	7.320,96
Emisiones asociadas a bienes alquilados (tCO ₂ e)	3.8	4.4	0,00
Emisiones indirectas asociadas al uso de productos de la empresa (tCO₂e)	3	5	190,94
Emisiones indirectas asociadas al uso de productos de la empresa (tCO ₂ e)	3.12	5.1	190,94
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (tCO₂e)	3	6	4.221,86
Emisiones indirectas asociadas a la producción/transporte y pérdidas de energía y combustibles (tCO ₂ e)	3.3	6.1	4.221,86

And for the record, it is signed by the verifier and the technical reviewer of the Entity at Barcelona, 24th March 2025,



Susanna Cabrera
Lead Verifier

Almudena
Bouza
Martínez

Firmado digitalmente
por Almudena Bouza
Martínez
Fecha: 2025.04.23
17:18:21 +02'00'

Almudena Bouza
Technical Reviewer

TÜV Rheinland Inspection, Certification & Testing, S.A.

DECLARES THAT:

Verification **of the organization's Carbon Footprint** has been carried out.

MAGOTTEAUX LTÉE.

**601 Champlain Rue, Magog QC
J1X 2N1, Canada**

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

The Emissions Report (Magotteaux Canada GHG Emissions Report 2024), dated (March 2025) and ratified by the organization's management, is deemed to have been conforms to the requirements of standard ISO 14064-1:2018/ GHG Protocol Accounting and Reporting Standard for a limited level of assurance in accordance with ISO 14064-3:2019 with the following qualifications.

That the verified tons reflected have been (expression for GHG Protocol):

	2024
Production	33.433,00
Total emissions (tCO₂e)	119.616,39
Scope 1	3.315,61
Scope 2	90,76
Scope 1+2	3.406,37
Scope 3	116.210,02

That the verified tons reflected have been (expression for ISO 14064-1:2018):

	2024
Total emissions (tCO₂e)	119.616,39
Direct emissions (tCO ₂ e)	3.315,61
Indirect emissions from imported energy (tCO ₂ e)	90,76
Indirect emissions from transport (tCO ₂ e)	7.998,39
Indirect emissions from products and services used by the company (tCO ₂ e)	106.100,19
Indirect emissions associated with the use of company products (tCO ₂ e)	56,06
Indirect emissions associated with production/transportation and energy and fuel losses (tCO ₂ e)	2055,38

	GHG Protocol	ISO14064	TOTAL
Total emissions (tCO₂e)	Scope	Category	119.616,39
Direct emissions (TnCO₂e)	1	1	3.315,61
Emissions associated with the consumption of fuels in the facilities (TnCO ₂ e)	1.1	1.1	1.440,14
Emissions derived from the production process itself (TnCO ₂ e)	1.2	1.2	1.771,11
Emissions associated with the consumption refrigerant gases (TnCO ₂ e)	1.2	1.4	48,87
Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO ₂ e)	1.3	1.3	55,49
Indirect emissions from imported energy (TnCO₂e)	2	2	90,76
Indirect emissions from imported energy (TnCO ₂ e)	2.1	2.1	90,76
Indirect emissions due to transport (TnCO₂e)	3	3	7.998,39
Upstream logistics (TnCO ₂ e)	3.4	3.1	3.656,89
Business travels (TnCO ₂ e)	3.6	3.2	183,76
Employee commuting (TnCO ₂ e)	3.7	3.3	164,11
Downstream logistics, including waste transportation (TnCO ₂ e)	3.9	3.4	3.993,63
Indirect emissions from products and services used by the company (TnCO₂e)	3	4	106.100,19
Purchased products, such as raw materials, consumables and services (TnCO ₂ e)	3.1	4.1	100.184,04
Equipment and infrastructure (TnCO ₂ e)	3.2	4.2	1.533,70
Emissions associated with waste generation (TnCO ₂ e)	3.5	4.3	3.992,11
Emissions associated with leased assets (TnCO ₂ e)	3.8	4.4	390,34
Indirect emissions associated with the use of the company's products (TnCO₂e)	3	5	56,06
Indirect emissions associated with the use of the company's products (TnCO ₂ e)	3.12	5.1	56,06
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO₂e)	3	6	2.055,38
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO ₂ e)	3.3	6.1	2.055,38

And for the record, it is signed by the verifier and the technical reviewer of the Entity at Barcelona, 24th March 2025,


Susanna Cabrera
 Lead Verifier

Almudena Bouza Martínez
 Firmado digitalmente por Almudena Bouza Martínez
 Fecha: 2025.04.23 17:37:14 +02'00'

Almudena Bouza
 Technical Reviewer

Telephone contact: 91 744 45 00-Area Competences TUV Rheinland Iberica, ICT, S.A.

TÜV Rheinland Inspection, Certification & Testing, S.A.

DECLARES THAT:

Verification **of the organization's Carbon Footprint** has been carried out.

MAGOTTEAUX (PTY) LTD & GRINDING MEDIA, S.A.
Union Junction, Black Reef Road Germiston, 1401; South Africa

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

The Emissions Report (Magotteaux GMSA Greenhouse Gas Emissions report, year 2024), dated (March 2025) and ratified by the organization's management, is deemed to have been

conforms to the requirements of standard ISO 14064-1:2018/ GHG Protocol Accounting and Reporting Standard for a limited level of assurance in accordance with ISO 14064-3:2019 with the following qualifications.

That the verified tons reflected have been (expression for GHG Protocol):

	2024
Production	115.927,90
Total emissions (tCO₂e)	530.839,36
Scope 1	6.275,70
Scope 2	153.388,57
Scope 1+2	159.664,27
Scope 3	371.175,09

That the verified tons reflected have been (expression for ISO 14064-1:2018):

	GHG Protocol	ISO14064	TOTAL
Total emissions (tCO₂e)	Scope	Category	530.839,36
Direct emissions (TnCO₂e)	1	1	6.275,70
Emissions associated with the consumption of fuels in the facilities (TnCO ₂ e)	1.1	1.1	3.221,65
Emissions derived from the production process itself (TnCO ₂ e)	1.2	1.2	2.769,00
Emissions associated with the consumption refrigerant gases (TnCO ₂ e)	1.2	1.4	279,77
Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO ₂ e)	1.3	1.3	5,28
Indirect emissions from imported energy (TnCO₂e)	2	2	153.388,57
Indirect emissions from imported energy (TnCO ₂ e)	2.1	2.1	153.388,57
Indirect emissions due to transport (TnCO₂e)	3	3	101.710,93
Upstream logistics (TnCO ₂ e)	3.4	3.1	3.919,17
Business travels (TnCO ₂ e)	3.6	3.2	27,81
Employee commuting (TnCO ₂ e)	3.7	3.3	550,82
Downstream logistics, including waste transportation (TnCO ₂ e)	3.9	3.4	97.213,13
Indirect emissions from products and services used by the company (TnCO₂e)	3	4	230.788,46
Purchased products, such as raw materials, consumables and services (TnCO ₂ e)	3.1	4.1	204.084,74
Equipment and infrastructure (TnCO ₂ e)	3.2	4.2	837,20
Emissions associated with waste generation (TnCO ₂ e)	3.5	4.3	22.451,08
Emissions associated with leased assets (TnCO ₂ e)	3.8	4.4	3.415,44
Indirect emissions associated with the use of the company's products (TnCO₂e)	3	5	32,64
Indirect emissions associated with the use of the company's products (TnCO ₂ e)	3.12	5.1	32,64
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO₂e)	3	6	38.643,06
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO ₂ e)	3.3	6.1	38.643,06

And for the record, it is signed by the verifier and the technical reviewer of the Entity at Barcelona, 24th March 2025,


Susanna Cabrera
Lead Verifier

Almudena Bouza
Technical Reviewer

TÜV Rheinland Inspection, Certification & Testing, S.A.

DECLARES THAT:

Verification **of the organization's Carbon Footprint** has been carried out.

MAGOTTEAUX INC.

2360 Industrial Park Rd. PO Box 518

Pulaski, TN 38478

As a result of this verification process according to procedure 6-PS2.670.00

TÜV Rheinland states that:

The Emissions Report (Magotteaux Pulaski GHG Emissions Report 2024), dated (March 2025) and ratified by the organization's management, is deemed to have been conforms to the requirements of standard ISO 14064-1:2018/ GHG Protocol Accounting and Reporting Standard for a limited level of assurance in accordance with ISO 14064-3:2019 with the following qualifications.

That the verified tons reflected have been (expression for GHG Protocol):

	2024
Production	23.818,00
Total emissions (tCO₂e)	78.034,85
Scope 1	15.288,05
Scope 2	17.540,00
Scope 1+2	32.828,05
Scope 3	45.206,80

That the verified tons reflected have been (expression for ISO 14064-1:2018):

			2024
Total emissions (tCO₂e)			78.034,85
Direct emissions (tCO ₂ e)			15.288,05
Indirect emissions from imported energy (tCO ₂ e)			17.540,00
Indirect emissions from transport (tCO ₂ e)			5.057,86
Indirect emissions from products and services used by the company (tCO ₂ e)			34.294,30
Indirect emissions associated with the use of company products (tCO ₂ e)			193,86
Indirect emissions associated with production/transportation and energy and fuel losses (tCO ₂ e)			5660,78
	GHG Protocol	ISO14064	TOTAL
Total emissions (tCO₂e)	Scope	Category	78.034,85
Direct emissions (TnCO₂e)	1	1	15.288,05
Emissions associated with the consumption of fuels in the facilities (TnCO ₂ e)	1.1	1.1	14935,00
Emissions derived from the production process itself (TnCO ₂ e)	1.2	1.2	34,90
Emissions associated with the consumption refrigerant gases (TnCO ₂ e)	1.2	1.4	10,65
Emissions associated with the consumption of fuels for company vehicles and machinery (TnCO ₂ e)	1.3	1.3	307,50
Indirect emissions from imported energy (TnCO₂e)	2	2	17.540,00
Indirect emissions from imported energy (TnCO ₂ e)	2.1	2.1	17.540,00
Indirect emissions due to transport (TnCO₂e)	3	3	5.057,86
Upstream logistics (TnCO ₂ e)	3.4	3.1	329,43
Business travels (TnCO ₂ e)	3.6	3.2	9,78
Employee commuting (TnCO ₂ e)	3.7	3.3	609,07
Downstream logistics, including waste transportation (TnCO ₂ e)	3.9	3.4	4.109,58
Indirect emissions from products and services used by the company (TnCO₂e)	3	4	34.294,30
Purchased products, such as raw materials, consumables and services (TnCO ₂ e)	3.1	4.1	30.847,75
Equipment and infrastructure (TnCO ₂ e)	3.2	4.2	1.636,68
Emissions associated with waste generation (TnCO ₂ e)	3.5	4.3	1.408,07
Emissions associated with leased assets (TnCO ₂ e)	3.8	4.4	401,8
Indirect emissions associated with the use of the company's products (TnCO₂e)	3	5	193,86
Indirect emissions associated with the use of the company's products (TnCO ₂ e)	3.12	5.1	193,86
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO₂e)	3	6	5660,78
Indirect emissions associated with production/transport and losses of energy and fuels (TnCO ₂ e)	3.3	6.1	5.660,78

And for the record, it is signed by the verifier and the technical reviewer of the Entity at Barcelona, 24th March 2025,


Susanna Cabrera
Lead Verifier

Almudena Bouza Martínez
Firmado digitalmente por Almudena Bouza Martínez
Fecha: 2025.04.23 18:41:05 +02'00'
Almudena Bouza
Technical Reviewer

Telephone contact: 91 744 45 00-Area Competences TUV Rheinland Iberica, ICT, S.A.



SIGDO KOPPERS S.A.

ENAEX GROUP

Declaração de Verificação de inventário de emissões de gases de efeito estufa Programa Brasileiro GHG Protocol

Esta Declaração de Verificação documenta que o Organismo de Verificação (OV) citado abaixo realizou as atividades de verificação de acordo com as Especificações de Verificação do Programa Brasileiro GHG Protocol e a norma ABNT NBR ISO 14064-3:2007.

Organismo de Verificação (OV)	Organização Inventariante (OI)
Nome do OV: ABNT - Associação Brasileira de Normas Técnicas	Nome da OI: Enaex Brasil
Nome do verificador líder: Quelem Franciela Pereira Selau	Nome do responsável pelo inventário: Eliziane Haluch dos Santos
E-mail: quelemselau@gmail.com	E-mail: eliziane.santos@enaex.com

As emissões de gases de efeito estufa (GEE) informadas pela Organização Inventariante em seu inventário de emissões, de 1º de janeiro até 31 de dezembro de 2024, são verificáveis e cumprem os requisitos do Programa Brasileiro GHG Protocol, detalhados nas Especificações do Programa Brasileiro GHG Protocol de Contabilização, Quantificação e Publicação de Inventários Corporativos de Emissões de Gases de Efeito Estufa (EPB).

Nível de Confiança

O Organismo de Verificação (OV) atribuiu o seguinte nível de confiança ao processo de verificação:

Verificação com nível de confiança razoável "O inventário de gases de efeito estufa da organização inventariante para o ano de 2024 está materialmente correto, é uma representação justa dos dados e informações de GEE e foi elaborado de acordo com as EPB." As limitações do processo de verificação foram:
Verificação com nível de confiança limitado "Não há indícios de que o inventário de gases de efeito estufa da organização inventariante para o 2024 de não esteja materialmente correto, não seja uma representação justa dos dados e informações de GEE e não tenha sido preparado de acordo com as EPB." As limitações do processo de verificação foram: "Avaliação de dados secundários"
Inventário não verificável Incluir razão, por exemplo: "devido a erros de dados" ou "não está de acordo com as EPB":

Descrição do Escopo da Verificação

O inventário do ano de 2024 da organização inventariante foi verificado dentro do seguinte escopo:

Limites organizacionais	Limites operacionais
Controle operacional	Escopo 1
Participação societária	Escopo 2 - abordagem baseada em localização
	Escopo 2 - abordagem baseada em escolha de compra
	Escopo 3

Foram excluídas da verificação: n/a

Este modelo de Declaração de Verificação pode ser revisado a qualquer momento e a versão atualizada estará disponível no website do Programa Brasileiro GHG Protocol - www.fgv.br/ces/ghg

Para mais informações consulte a Nota técnica "Recomendações para a contabilização de emissões de escopo 2 em inventários corporativos de gases de efeito estufa no âmbito do Programa Brasileiro GHG Protocol".

Instalações visitadas

Listar todos os locais visitados durante a verificação e a data de cada visita

Nome do local	Relação do local com a holding	Endereço	Data da visita
IBQ Indústrias Químicas S/A (ENAEX Brasil)	Matriz	Rodovia Régis Bittencourt, km 01 - s/nº Quatro Barras CEP: 83420-000	16/04/2025

Total de emissões verificadas em toda a organização, segundo a abordagem de Controle Operacional

GEE	Em toneladas do gás			
	Escopo 1	Escopo 2 - Abordagem baseada na localização	Escopo 2 - Abordagem baseada na escolha de compra	Escopo 3
CO ₂	39.216,933	412,763	-	18.415,410
CH ₄	58,160	0,000	-	11,926
N ₂ O	66,227	0,000	-	132,749
HFC	236,559	0,000	-	0,000
PFC	0,000	0,000	-	0,000
SF ₆	0,000	0,000	-	0,000
NF ₃	0,000	0,000	-	0,000
TOTAL	39.577,879	412,763	-	18.560,085
CO2 biogênico	723,372	0,000	-	1.250,159

Este modelo de Declaração de Verificação pode ser revisado a qualquer momento e a versão atualizada estará disponível no website do Programa Brasileiro GHG Protocol - www.fgv.br/ces/ghg
Para mais informações consulte a Nota técnica “Recomendações para a contabilização de emissões de escopo 2 em inventários corporativos de gases de efeito estufa no âmbito do Programa Brasileiro GHG Protocol”.

APÊNDICE A

Total de remoções verificadas em toda a organização, segundo a abordagem de Controle Operacional

GEE	Em toneladas do gás			
	Escopo 1	Escopo 2 - Abordagem baseada na localização	Escopo 2 - Abordagem baseada na escolha de compra	Escopo 3
CO2 biogênico	0,000	0,000	-	0,000

Total de emissões verificadas em toda a organização, segundo a abordagem de Participação Societária (se aplicável)

GEE	Em toneladas do gás			
	Escopo 1	Escopo 2 - Abordagem baseada na localização	Escopo 2 - Abordagem baseada na escolha de compra	Escopo 3
CO ₂	-	-	-	-
CH ₄	-	-	-	-
N ₂ O	-	-	-	-
HFC	-	-	-	-
PFC	-	-	-	-
SF ₆	-	-	-	-
NF ₃	-	-	-	-
TOTAL	-	-	-	-
CO2 biogênico	-	-	-	-

Total de remoções verificadas em toda a organização, segundo a abordagem de Participação Societária

GEE	Em toneladas do gás			
	Escopo 1	Escopo 2 - Abordagem baseada na localização	Escopo 2 - Abordagem baseada na escolha de compra	Escopo 3
CO2 biogênico	-	-	-	-

Comentários adicionais

Nenhum comentário

Este modelo de Declaração de Verificação pode ser revisado a qualquer momento e a versão atualizada estará disponível no website do Programa Brasileiro GHG Protocol - www.fgv.br/ces/ghg

Para mais informações consulte a Nota técnica "Recomendações para a contabilização de emissões de escopo 2 em inventários corporativos de gases de efeito estufa no âmbito do Programa Brasileiro GHG Protocol".

Conflito de interesse (CDI)

Eu, Quelem Franciela Pereira Selau, certifico que nenhum conflito de interesse existe entre a Organização Inventariante e o Organismo de Verificação, ou qualquer dos indivíduos membros da equipe de verificação envolvidos na verificação do inventário, conforme definido no capítulo 3.2.1 das Especificações de Verificação do Programa Brasileiro GHG Protocol.

Quelem Franciela Pereira Selau, Verificador Líder

16/05/2025

Data

Reconhecimento digital da assinatura

Conclusão do verificador sobre o inventário de emissões de GEE

Como responsáveis pelas atividades de verificação do inventário de GEE da organização inventariante, atestamos que as informações contidas neste documento são verdadeiras.

Quelem Franciela Pereira Selau, Verificador Líder

16/05/2025

Data

Reconhecimento digital da assinatura⁴

Fabiane Governatori, Revisor Independente

16/05/2025

Data

Reconhecimento digital da assinatura⁴

Autorização

Eu, Eliziane Haluch dos Santos, aceito os resultados desta declaração de verificação.

Eliziane Haluch dos Santos, Representante da OI

16/05/2025

Data

Reconhecimento digital da assinatura⁴

⁴Ao marcar a caixa "Reconhecimento digital da assinatura", concordo que esta declaração de verificação seja considerada "feita por escrito" e "assinada" para todos os fins e que quaisquer registros eletrônicos serão considerados "feitos por escrito". Renuncio expressamente a todo e qualquer direito de negar a obrigatoriedade jurídica, a validade ou a executoriedade desta declaração de verificação e de quaisquer documentos a ela relacionados com base em que tenham sido elaborados e concluídos eletronicamente.

Revisão (Se aplicável)

Nenhuma revisão adicionada

Equipe de verificação (opcional)

A equipe de verificação é composta pelos seguintes profissionais:

Este modelo de Declaração de Verificação pode ser revisado a qualquer momento e a versão atualizada estará disponível no website do Programa Brasileiro GHG Protocol - www.fgv.br/ces/ghg

Para mais informações consulte a Nota técnica "Recomendações para a contabilização de emissões de escopo 2 em inventários corporativos de gases de efeito estufa no âmbito do Programa Brasileiro GHG Protocol".

Vérification du « Bilan de Gaz à effet de serre » de Davey Bickford

au format GHG Prototcol



Rapport de Vérification Année 2024

Dossier
n°2502NRJNE000015
(Année 2024)

Davey Bickford, Site de Héry

Davey Bickford

Le Moulin Gaspard
Chemin de la pyrotechnie
89 550 HERY

SOCOTEC Environnement, Agence Energie-Bas Carbone Nord Est
4 rue des Ormes – 59810 Lesquin
Affaire suivie par : Mathieu LICHOSIEK
Tel : 06 71 22 23 68
mathieu.lichosiek@socotec.com

1.1 EQUIPE DE VERIFICATION

Vérificateur	Mathieu LICHOSIEK
Nom de l'organisme vérificateur	Socotec Environnement-Agence Energie Nord Est
Adresse	4 rue des Ormes – 59810 Lesquin
Date du contrat de vérification	Commande du 07/03/2025

1.2 SITE

Nom de l'exploitant	Davey Bickford
Nom de du site	Site de Héry
Adresse de l'installation	Chemin de lapyrotechnie – 89550 Héry
Date de l'arrêté préfectoral d'autorisation en vigueur	AP initial du 26/05/1960 le cas échéant voir https://www.georisques.gouv.fr/risques/installations/donnees/details/0005401301
SIRET	720 501 410 00024
Chiffre d'Affaires et/ou Tonnage produit	116 765 k€ en 2023

1.3 DOSSIER CONTROLE

Année concernée par le dossier	2024
Nom du fichier vérifié	Fichier <i>PGCI_GHG1949_1181.pdf</i> <i>GCI-ghg-activity-report_488_2024 Davey Bickford Enaex Héry (5).xlsx</i>
Date de transmission du Bilan (version finale) à SOCOTEC	20/03/2025
Emissions reprises- Scope 1	- Utilisation de gaz naturel : <i>Attention à l'unité (PCI/PCS)</i> - Utilisation de carburants – circulation sur site. <i>Attention au FE du gazole utilisé, non adapté.</i> - Utilisation de fioul sur site - Emissions fugitives – Manque gaz réfrigérants des groupes de froid et de climatisation
Emissions reprises – Scope 2	- Consommations électriques du site
Emissions reprises – Scope 3	Données achats : - Achats de services - Achats de service de leasing - Achats de matières premières - Achats de futurs emballages - Repas - Données sur les immobilisations de l'année 2024 (en format ghg Protocol, seules les immobilisations de l'année sont à comptabiliser – pas d'amortissements de l'ensemble de l'actif immobilisé) Données Transports : - Déplacements domicile / travail (voiture) - Frêt amont et aval : Camion, maritime et aérien. <i>Attention à la cohérence des facteurs d'émission entre amont et aval (fret terrestre, maritime)</i> - Déplacements professionnels : Train, avion, véhicules Déchets directs et indirects : - Fin de vie des produits - Déchets directs. <i>Attention à l'utilisation d'un FE « DAS » non adapté</i> Emissions indirectes liées à l'énergie (scope 3)
Changements survenus sur le type et volume de production, depuis l'établissement du dernier bilan de gaz à effet de serre précédente	Sans objet pour l'année 2024 (pas d'évolutions de produits, procédés ou mode de comptage susceptibles de modifier des éléments du dossier ; selon échanges par visioconférence avec M.Alexandre CLAUDE , du 02/04/2025).

2. VERIFICATION DU DOSSIER

2.1 NATURE ET ETENDUE DES TRAVAUX

SOCOTEC Environnement a effectué ses travaux, notamment en effectuant :

- une prise de connaissance de la société visant à la compréhension des activités de production et de ses chaînes d'approvisionnement,
- une prise de connaissance des éléments analytiques utilisés pour la réalisation du bilan de gaz à effet de serre,
- la mise en œuvre d'un plan de vérification basé sur le croisement des données d'activités, des facteurs d'émission et de leur ventilation dans les différents Scope,
- une comparaison de l'évolution du bilan de gaz à effet de serre depuis sa dernière réalisation
- la rédaction d'un rapport provisoire soumis à l'approbation de l'entreprise,
- la rédaction d'un rapport définitif et d'une synthèse en version anglaise.

Notre intervention s'est basée sur une vérification documentaire (du 18 mars au 5 avril 2025) ainsi que des échanges par mails et visioconférence (le 2 avril **2025**).

Nous avons mis en œuvre les travaux de vérification suivants conduisant à l'assurance que le bilan de gaz à effet de serre établi par Davey Bickford ne présente pas d'anomalie significative :

- Nous avons au niveau du site, mené les entretiens nécessaires auprès des personnes responsables de l'élaboration des données utilisées (service HSE).
- Vérifié la cohérence vis-à-vis des activités en consultant l'arrêté préfectoral en vigueur (rubriques ICPE) sur <https://www.georisques.gouv.fr/risques/installations/donnees/details/0005401301>
- Nous avons apprécié les hypothèses de calculs et les facteurs d'émission utilisés, au regard de leur pertinence, leur fiabilité, leur caractère compréhensible et leur **exhaustivité**. A ce titre, nous avons questionné les rubriques non quantifiées dans le cadre de l'élaboration du Bilan de Gaz à effet de serre. Nous avons également effectué un rapprochement avec les données comptables disponibles en ligne (site pappers) au titre de l'année 2023.
- Nous avons apprécié la consolidation des données et leur ventilation au format GHG Protocol
- Concernant les données d'activité, nous avons mené des contrôles et tests de détail, consistant à rapprocher les données d'activité avec les facteurs d'émission afin de vérifier les calculs effectués. Néanmoins, nous n'avons pas mené de contrôle sur les valeurs de données d'activité elles-mêmes et leur traçabilité.

2.2 VALIDATION DES DONNEES

Validité des Facteurs d'émission utilisés	☒ Oui ☐ Non ☐ Sans objet Commentaires éventuels : Certains FE sont à améliorer dans le cadre d'une prochaine mise à jour.
Validité des données d'activité utilisées	☒ Oui ☐ Non ☐ Sans objet Si non, explications : Commentaires éventuels : Nous avons vérifié la cohérence de l'unité de chacune des données d'activité utilisées, mais en aucun cas la valeur utilisée
Validité de la ventilation des Scope / Ghg Protocol	☒ Oui ☐ Non ☐ Sans objet Si non, explications : Commentaires éventuels : Nous avons pu vérifier la cohérence de la ventilation des postes étudiés au format Ghg Protocol
Validité du périmètre de l'étude	☒ Oui ☐ Non ☐ Sans objet Si non, explications : Commentaires éventuels : Nous avons vérifié la cohérence du périmètre étudié, et des postes exclus de l'étude, en accord avec les activités de l'entreprise
Correction des inexactitudes ou non-conformité de l'année précédente ?	☐ Oui ☐ Non ☒ Sans objet Si non, détail : Commentaires éventuels : Nous avons vérifié la cohérence des données, en ordre de grandeur, avec les données de 2021. L'ensemble de nos remarques sont reprises en actions d'amélioration dans l'ensemble de ce document.

3. AVIS

Sur la base de nos travaux, nous n'avons pas relevé d'anomalie significative de nature à remettre en cause :

- l'élaboration du bilan de gaz à effet de serre par la société Davey Bickford,
- la sincérité et validité des données mentionnées.

*Les travaux menés lors de la vérification nous permettent de conclure que : le dossier est reconnu **satisfaisant avec commentaires**, car il est exempt d'inexactitude significative. Les suggestions d'améliorations sont listées ci-dessous :*

- une erreur sur la prise en compte de vos kwh de gaz, repris en PCS en lieu et place d'être repris en PCI, majore les émissions de ce poste de l'ordre de 10%
- inclure dans le périmètre d'étude une estimation des gaz réfrigérants émis de façon fugitive, y compris en l'absence de recharge au cours de l'année de reporting,
- Nous avons relevé quelques incohérences sur les facteurs d'émissions utilisés : déchets : utilisation d'un FE (facteur d'émission) DAS non pertinent, gazole : utilisation d'un FE B30 en lieu et place d'un FE B10
- Le questionnement de vos fournisseurs de métaux sur la proportion éventuelle de métaux recyclés dans les matières premières paraît important pour mieux préciser les facteurs d'émission en conséquence.
- Certaines données d'activité sont à vérifier/consolider : quantités de peroxyde d'hydrogène utilisé, exhaustivité des services monétaires utilisés
- L'utilisation de ratios monétaires par type de services achetés possède déjà un facteur d'incertitude important : nous vous encourageons à utiliser un maximum de catégories afin de minimiser ces incertitudes
- Veiller à la cohérence des facteurs d'émission, notamment liés au transport terrestre et maritime (entrant/sortant),
- Rapporter vos émissions à des indicateurs d'activité significatifs de l'activité de l'entreprise (CA, quantités produites, etc), afin de juger de façon plus efficace de l'intensité carbone de l'activité,
- Travailler sur un plan d'actions d'amélioration complémentaire au reporting des données carbone,
- Assurer un reporting annuel de vos données carbone pour mesurer « en continu » l'évolution de vos émissions, dans une logique d'amélioration continue.

Délivré à : Lesquin
Le : 9 avril 2025

Pour SOCOTEC Environnement,
Nom : Mathieu LICHOSIEK

Signature



LISTE DES FACTEURS D'EMISSION UTILISES

Facteurs d'émission issus de la « base carbone » :

Intitulé	Bases de données de facteurs d'émission	Version	unité	Valeur actuelle	Valeur utilisée
Acide nitrique 50% - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	3180	3180
Acier ou fer blanc - neuf - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	2211	2211
Alcool - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	1467	1467
Aluminium - neuf - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	7803	7803
Amidon de maïs ou féculé de maïs - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/kg de poids net	1,08	1,08
Articulé - 34 à 40 tonnes - Diesel routier, incorporation 7 % de biodiesel - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/t.km	0,0823	0,0823
Articulé - 34 à 40 tonnes - GNC - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/t.km	0,0798	0,0798
Avion passagers - >220 sièges, >3500 kms, 2018 - AVEC trainées - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/t.km	1,52	1,52
Avion passagers - Court courrier, 2018 - AVEC trainées - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/peq.km	0,259	0,259
Avion passagers - Long courrier, 2018 - AVEC trainées - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/peq.km	0,152	0,152
Avion passagers - Moyen courrier, 2018 - AVEC trainées - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/peq.km	0,188	0,187
Bois courte durée de vie (ameublement...) - fabrication - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	36,7	36,7
Bois d'oeuvre (construction) - (si replanté), amont - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	36,7	36,7
Carton - neuf - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	390	390
Cuivre - neuf - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	1445	1445
DAS - Incinération - Impacts - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne de déchets	943	943
DIS - Incinération - Impacts - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne de déchets	844	844
DIS - Stockage - Impacts - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne de déchets	128	128
Déchets de cuisine - Méthanisation - Impacts - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne de déchets	173	173
Electricité - 2023 - mix moyen - consommation - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/kWh	0,058	0,058
Emballages - Autres plastiques et plastiques complexes - Fin de vie moyenne filière - Impacts - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne de déchets	1844	1,844
Emballages - Carton - Fin de vie moyenne filière - Impacts - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne de déchets	737	0,737
Emballages - Plastique souple PE - Recyclage - Impacts - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne de déchets	530	530
Essence - E10 - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/litre	2,69	2,69
Fioul domestique - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/litre	3,25	3,25
Gaz naturel - Europe	Base de données « Base Carbone ® »	V23_4	kgCO2e/kWh PCI	0,243	0,243
Gazole - B30 - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/litre	2,64	2,64
Machines - fabrication - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/kg	5,5	5,5
Ordures ménagères résiduelles - Fin de vie moyenne - Impacts - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne de déchets	386	386
PP - polypropylène - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	2000	2000
Plastique - PEBD - neuf - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	2090	2090
Plastique - PEHD - neuf - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	1920	1920
Plastique - PS - neuf - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	2830	2830
Plastique - PVC - neuf - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	1870	1870
Plastique - moyenne - neuf - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	2383	2383
Porte-conteneur - Dry - Europe du Nord - Amérique du Nord, façade atlantique - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/t.km	0,0109	0,0109
Porte-conteneur - Dry - Valeur moyenne - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/t.km	0,00847	0,00847
Repas - moyen - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/repas	2,04	2,04
Sel marin gris - non iodé - non fluoré - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/kg de poids net	0,606	0,606
Service - Assurance, services bancaires, conseil et honoraires - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/keuro	110	110
Service - Courrier - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/keuro	130	130
Service - Hébergement et restauration - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/keuro	320	0,32
Service - Hébergement et restauration - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/keuro	320	320
Service - Matériel de transport - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/keuro	700	700
Service - Meubles et autres biens manufacturés - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/keuro	600	600
Service - Produits informatiques, électroniques et optiques - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/keuro	400	400
Service - Réparation et installation de machines et d'équipements - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/keuro	390	390
Service - Services (imprimerie, publicité, architecture et ingénierie, maintenance multi-technique des bâtimen - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/keuro	170	170
Service - Textile et habillement - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/keuro	600	600
Soude solide (poudre, granulés) - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/tonne	458	458
TER - 2019 - Traction moyenne - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/passager.km	0,0296	0,0296
TGV - 2019 - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/passager.km	0,00236	0,00236
Traitement des eaux usées - Hors infrastructure - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/m3	0,262	0,262
Voiture - Motorisation essence - 2018 - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/km	0,239	0,239
Voiture - Motorisation gazole - 2018 - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/km	0,227	0,227
Voiture - Motorisation moyenne - 2018 - France continentale	Base de données « Base Carbone ® »	V23_4	kgCO2e/km	0,231	0,218

Autres Facteurs d'émission utilisés :

Intitulé	Bases de données de facteurs d'émission	Version	unité	Valeur actuelle	Valeur utilisée
Articles électriques - petits - Production de matières premières, tonnes	Base de données « BEIS (UK-DEFRA) »	2024	kgCO2e/tonnes	5647,94563	5647,94563
Bois - Circuit fermé, tonnes	Base de données « BEIS (UK-DEFRA) »	2024	kgCO2e/tonnes	6,41061	6,41061
Métal : ferraille - Boucle fermée, tonnes	Base de données « BEIS (UK-DEFRA) »	2024	kgCO2e/tonnes	6,41061	6,41061
Papier et carton : carton - Boucle fermée, tonnes	Base de données « BEIS (UK-DEFRA) »	2024	kgCO2e/tonnes	6,41061	6,41061
Papier et carton : papier - Combustion, tonnes	Base de données « BEIS (UK-DEFRA) »	2024	kgCO2e/tonnes	6,41061	6,41061
Voiture moyenne - Hybride, km	Base de données « BEIS (UK-DEFRA) »	2024	kgCO2e/km	0,15922	0,15922
acetic acid - RER	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	1,86767	1,86767
activated silica - GLO	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	1,46907	1,46907
chemical, inorganic - GLO	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	1,83697	1,81751
explosive, tovox - RoW	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	4,32265	4,29888
flat plate solar collector, Cu absorber - RoW	Base de données « EcolInvent ® »	3,11	kgCO2e/m2	124,86733	124,86733
hydrogen peroxide, without water, in 50% solution state - RER	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	1,75304	1,09756
lead - GLO	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	1,54591	1,54591
pentaerythritol - RER	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	2,40138	2,10566
potassium permanganate - RER	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	3,67207	3,67207
sodium nitrite - RER	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	2,92656	2,92656
solvent, organic - GLO	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	3,10189	3,10189
tetrachloroethylene - UEO	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	4,12132	3,75444
waste aluminium - L'Europe sans la Suisse	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	0,03714	0,03714
waste copper - RoW	Base de données « EcolInvent ® »	3,11	kgCO2e/kg	0,04843	0,01724
Azoture de sodium	Mes FEC		kgCO2e/kg	44,57268	44,57268
TNR (1Kg)	Mes FEC		kgCO2e/kg	10,72356	10,72356
Transport fret aérien 2024 - expéditions	Données fournisseur 2024		kgCO2e/unité		1

LISTE DES DONNEES D'ACTIVITE UTILISEES

Description de l'activité		
Énergie Source Fixe - Combustibles		
Total des émissions: Énergies sources fixes - combustion	kgCO2e	2597917,894
Fioul domestique	litre	700
Gaz naturel	kWh	10681658
Électricité Source Fixe		
Total des émissions: Énergies sources fixes - hors combustion	kgCO2e	278980
Electricité - 2023 - mix moyen - consommation	kWh	4810000
Réseaux de chaleur / froid		
Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES		
Énergie Source Mobile - Combustibles		
Total des émissions: Énergies sources mobiles - combustion	kgCO2e	15467
Gazole - B30	l	1608
Essence - E10	l	206
Voiture moyenne - Hybride, km	km	67000
Électricité Source Mobile		
Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES		
Process industriels		
Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES		
Réfrigérants		
Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES		
Actifs en amortissement - parc immobilier		
Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES		
Actifs en amortissement - parc véhicules		
Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES		
Actifs en amortissement - parc informatique		

Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES

Actifs en amortissement - parc gros électroménager

Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES

Actifs en amortissement - parc mobilier et autres actifs

Durée d'amortissement choisie pour le parc mobilier	ans	1
Total des émissions: Amortissements du parc mobilier	kgCO2e	404628,524
Ligne automatique Daveytronic 3	kg	10000
flat plate solar collector, Cu absorber	m2	2800

Actifs en location

Total des émissions: Actifs en leasing amont	kgCO2e	490460
Service - Meubles et autres biens manufacturés	keuro	76
Service - Produits informatiques, électroniques et optiques	keuro	155
Service - Hébergement et restauration	keuro	598
Service - Textile et habillement	keuro	199
Service - Matériel de transport	keuro	103

Actifs en participation

Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES

Actif aval en franchise

Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES

Actif aval en leasing

Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES

Déplacements Domicile-Travail: Trajets

Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES

Déplacements domicile-travail: Méthode alternative assistée

Emissions Déplacements domicile-travail par méthode assistée	kgCO2e	711939,096
Nombre de personnes travaillant sur l'activité	Pers.	556
Nombre moyen de jours travaillés pendant la période	Jour	174
Distance moyenne du trajet domicile-travail, aller et retour	km	33
Pourcentage des trajets effectués en Voitures Particulières (hors voitures de fonction)	%	100
Distance moyenne aller-retour parcourue en voiture par employé et par jour	km	33
Pourcentage des trajets effectués en Motocycles ≥ 125 cm3	%	0
Distance moyenne aller-retour parcourue en moto (plus de 125 cc) par employé et par jour	km	0
Pourcentage des trajets effectués en Bus	%	0
Distance moyenne aller-retour parcourue en bus par employé et par jour	p.km	0
Pourcentage des trajets effectués en Transports ferrés métropolitains (Métro – Tramway...)	%	0
Distance moyenne aller-retour parcourue en métro ou tramway par employé et par jour	p.km	0
Pourcentage des trajets effectués en Trains régionaux	%	0
Distance moyenne aller-retour parcourue en RER, trains régionaux par employé et par jour	p.km	0
Pourcentage des trajets effectués en Trains Intercités	%	0
Distance moyenne aller-retour parcourue en train Intercités par employé et par jour	p.km	0
Pourcentage des trajets effectués en tant que Piéton et autres moyens de transport assimilés	%	0
Distance moyenne aller-retour parcourue à pied ou en mobilité urbaine	km	0

douce par employé et par jour

Déplacements professionnels

Total des émissions: Déplacements professionnels	kgCO2e	217452,5861
Avion passagers - Court courrier, 2018 - AVEC trainées	peq.km	2362
Avion passagers - Long courrier, 2018 - AVEC trainées	peq.km	822820
Avion passagers - Moyen courrier, 2018 - AVEC trainées	peq.km	160362
TER - 2019 - Traction moyenne	passager.km	102253
TGV - 2019	passager.km	16562
Voiture - Motorisation moyenne - 2018	km	3708
Voiture - Motorisation essence - 2018	km	43561
Voiture - Motorisation gazole - 2018	km	209248

Déplacements Professionnels - Hébergement

Total des émissions: Hébergements	kgCO2e	23736,64
(FUI) Montant total des factures d'hôtel, d'hébergement des employés dans le cadre de leur activité professionnelle	€	74177

Transport piloté de marchandises

Total des émissions: Opérations de transport pilotées par l'entreprise	kgCO2e	11174428,27
Transport fret aérien 2024 - expéditions	unité	11042250
Articulé - 34 à 40 tonnes - GNC	t.km	1280985
Porte-conteneur - Dry - Valeur moyenne	t.km	3536679

Transport non piloté de marchandises

Total des émissions: Opérations de transport non pilotées par l'entreprise	kgCO2e	501734,611
Articulé - 34 à 40 tonnes - Diesel routier, incorporation 7 % de biodiesel	t.km	842538
Avion passagers - >220 sièges, >3500 kms, 2018 - AVEC trainées	t.km	284443
Porte-conteneur - Dry - Europe du Nord - Amérique du Nord, façade atlantique	t.km	3704

Produits chimiques

Total des émissions: Achats de produits chimiques	kgCO2e	162907,331
NITRATE DE PLOMB chemical, inorganic	kg	4000
Alcool	t	1,883
Acide nitrique 50%	t	2,768
tetrachloroethylene	kg	2275
Pentrite	kg	31100
explosive, tovox	kg	1000
hydrogen peroxide, without water, in 50% solution state	kg	9,247
Soude solide (poudre, granulés)	t	0,9
potassium permanganate	kg	450
sodium nitrite	kg	600
acetic acid	kg	720
solvent, organic	kg	728
Azoture de sodium	kg	1200
TNR (1Kg)	kg	450

Plastiques

Total des émissions: Achats de plastiques	kgCO2e	3083019,18
Plastique - PEBD - neuf	t	127,141
Plastique - PEHD - neuf (PE+PEHD)	t	267,86
PP - polypropylène	t	604,44
Plastique - PS - neuf	t	234,735

Plastique - PVC - neuf (PVC+Vinyl)	t	29,68
Plastique - moyenne - neuf (surlin + velin)	t	105,2
Plastique - moyenne - neuf (Colorants/SEBS/TPE/BioPE)	t	51,88
Métaux, minéraux et dérivés		
Total des émissions: Achats de métaux	kgCO2e	1483710,3
Aluminium - neuf	t	45
Cuivre - neuf	t	118,5
Acier ou fer blanc - neuf	t	8,8
Acier ou fer blanc - neuf (fer cuivre)	t	426
Consommables de bureau		
<i>Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES</i>		
Autres Achats de biens		
Total des émissions: Autres biens achetés	kgCO2e	220384,3221
Carton - neuf	t	271
Bois	t	46,4
Bois courte durée de vie (aggloméré, contreplaqué)	t	41
activated silica	kg	2000
Amidon de maïs ou fécule de maïs	kg	1760
Sel marin gris - non iodé - non fluoré	kg	11250
lead (Equivalent FE troxyde de bismuth)	kg	1800
lead (Equivalent FE Minium)	kg	1300
Articles électriques - petits - Production de matières premières, tonnes (Modules électroniques)	t	16,827
Tous services et ratios monétaires		
Total des émissions: Services entrants	kgCO2e	1789449
Service - Assurance, services bancaires, conseil et honoraires	keuro	1872
Service - Courrier	keuro	12,3
Service - Produits informatiques, électroniques et optiques	keuro	41
Service - Réparation et installation de machines et d'équipements	keuro	2006
Service - Services (imprimerie, publicité, architecture et ingénierie, maintenance multi-technique des bâtimen	keuro	4607
Restauration		
Total des émissions: Services de restauration	kgCO2e	89190,84
Nombre de Repas - moyen	repas	43721
Eaux usées		
Total des émissions: Eaux usées	kgCO2e	1546,848
(FUI) Quantité d'eaux usées rejetée	m3	5904
Déchets triés		
Total des émissions: Autres déchets	kgCO2e	58404,57517
DIS - Incinération - Impacts	t	31,954
DIS - Stockage - Impacts	t	30,806
DAS - Incinération - déchets pyros	t	23,97
Déchets de cuisine - Méthanisation - Impacts	t	1,26
Emballages - Plastique souple PE - Recyclage - Impacts	t	5,68
Papier et carton : papier - Combustion, tonnes	t	2,56
Métal : ferraille - Boucle fermée, tonnes	t	17,97
Bois - Circuit fermé, tonnes	t	37,96
Papier et carton : carton - Boucle fermée, tonnes	t	94,08

scrap copper	kg	22760
waste aluminium	kg	7800
Déchets non triés		
Total des émissions: Déchets non triés	kgCO2e	34523,84
(FUI) Quantité d'ordures ménagères émise durant l'année en tonne	t	74,68
Autres déchets divers	t	14,76
Produits vendus - Transformation		
<i>Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES</i>		
Produits vendus - utilisation		
<i>Cette rubrique n'a pas été jugée pertinente dans le cadre de ce bilan GES</i>		
Produits vendus - fin de vie		
Total des émissions: Fin de vie des produits vendus	kgCO2e	269617,6
(FUI) Quantité de carton vendu (y compris emballages)	kg	266000
(FUI) Quantité de plastique vendu (y compris emballages)	kg	39900

Verification Report

Greenhouse gas emissions inventory

Davey Bickford, Héry (89), FRANCE

Lesquin, April, 9th - 2025

As an Independent Third Party, SOCOTEC ENVIRONNEMENT conducted its work, by:

- Gaining the company's understanding to comprehend its production activities and supply chains,
- Reviewing the analytical elements used for the greenhouse gas emissions inventory,
- Implementing a verification plan based on cross-referencing activity data, emission factors, and their allocation across different Scopes,
- Comparing the greenhouse gas emissions evolution inventory since its last completion,
- Drafting a provisional report submitted for the company's approval,
- Producing a final report and summary in English.

Our intervention based on a document review (from March 18 to April 4, 2025) as well as exchanges via email and video conference (on April 2, 2025).

We carried out the following verification procedures to provide assurance that the greenhouse gas emissions inventory established by Davey Bickford, based on 2024 data, does not contain any material misstatements:

- -We assessed the calculation assumptions and emission factors used, considering their relevance, reliability, comprehensibility, and completeness. In this regard, we questioned the unquantified items in the Greenhouse Gas Emissions Inventory.
- We evaluated the consolidation of data and its allocation according to the GHG Protocol format.
- Regarding activity data, we conducted controls and detailed tests, consisting of reconciling activity data with emission factors to verify the calculations performed. However, we did not conduct controls on the activity data values themselves and their traceability.

Based on our work, we did not identify any material misstatements that would call into question:

- The fairness of the greenhouse gas emissions inventory by Davey Bickford, in GHG Protocol format,
- The fairness and validity of the data mentioned.

The work carried out during the verification allows us to conclude that: the file is recognized as satisfactory with comments, as it is free from material misstatements. Improvement suggestions are included in the appendix.

For SOCOTEC ENVIRONNEMENT,

Mathieu LICHOSIEK

Signature



REPORTE DE REVISIÓN INDEPENDIENTE DE GASES DE EFECTO INVERNADERO

Santiago, 20 de mayo de 2025

A los directores
El Trovador 4253, Las Condes
ENAEX S.A.

De nuestra consideración, el Inventario de Emisiones de Gases de Efecto Invernadero (GEI) considera:

Periodo: **01/01/2024 – 31/12/2024**

Compañía: **ENAEX S.A.**

Dirección: Av. El Trovador 4253, piso 6, Las Condes, Santiago.

La revisión ha sido realizada de acuerdo con la norma ISO 14064-3, y se ha evaluado la cuantificación del inventario de gases efecto invernadero según los requisitos exigidos por el Estándar Corporativo de Contabilidad y Reporte del GHG Protocol. El inventario evaluado representa una cantidad total de:

1.553.111 tCO₂e

Para las siguientes actividades:

- a) Alcance 1: Emisiones Directas de GEI:
 - Consumo de diésel (fuentes fijas y móviles).
 - Consumo de gasolina (fuentes móviles).
 - Consumo de Gas Licuado de Petróleo (fuentes fijas).
 - Emisiones de proceso (planta de ácido nítrico, planta de concentración de ácido).
 - Tratamiento de aguas servidas y residuos peligrosos (detonación basura explosiva).
- b) Alcance 2: Emisiones Indirectas de GEI asociadas a la electricidad:
 - Compra de energía eléctrica de la red.
- c) Alcance 3: Otras Emisiones Indirectas de GEI:
 - Categoría 1. Compra de bienes y servicios.
 - Categoría 3: Actividades relacionadas con combustible y energía no incluidos en el alcance 1 o 2.
 - Categoría 4. Transporte y distribución aguas arriba.
 - Categoría 5. Residuos generados en la operación.
 - Categoría 6. Viajes de negocios.
 - Categorias 7. Transporte de empleados.
 - Categoría 9. Transporte y distribución aguas abajo.

**Tabla 1: ENAEX S.A. Emisiones de Gases de Efecto Invernadero por instalación, para el año 2024
(01/01/2024 – 31/12/2024)**

ENAEX S.A.	Total de Emisiones (tCO ₂ e)			
	Alcance 1	Alcance 2 ¹	Alcance 3	Emisiones Alcance 1,2 & 3
Planta Prillex	690.770	7.418	799.212	1.497.400
Planta Rio Loa	4.227	762	17.679	22.667
Planta Punta Teatinos	1.796	183	30.349	32.328
Oficinas centrales	-	159	556	715
Total (*)	696.793	8.522	847.796	1.553.111

(*) Diferencias de redondeo

Tabla 2: Otras Emisiones Indirectas de Gases de Efecto Invernadero (Alcance 3) por categoría para el año 2024

ENAEX S.A.	Total de Emisiones 2024 (tCO ₂ e)
Categoría de Emisiones Alcance 3	
Categoría 1. Compra de bienes y servicios	749.336
Categoría 3. Actividades relacionadas con combustible y energía no incluidos en el alcance 1 o 2	1.382
Categoría 4. Transporte y distribución aguas arriba	22.544
Categoría 5. Residuos generados en la operación	263
Categoría 6. Viajes de negocios	2.368
Categoría 7. Transporte de empleados	668
Categoría 9. Transporte y distribución aguas abajo	71.233
Total (*)	847.796

(*) Diferencias de redondeo

Autorizado por:



Paulina Kellenberger

Auditor Líder Gases de Efecto Invernadero

Cabe destacar que esta verificación no constituye una auditoría, y, en consecuencia, no expresamos una opinión de auditoría sobre esta declaración. Esta declaración no es válida sin el alcance, roles y responsabilidades, hallazgos y conclusión de la verificación disponibles en las páginas 3 a 5 de esta carta.

¹ Se detalla sólo el método de ubicación para el Alcance 2. El método de mercado será reportado en una etapa posterior.

Breve descripción del proceso de verificación

SGS Chile Ltda. (en adelante SGS) ha sido contratado por ENAEX S.A. S.A. para la verificación de sus emisiones directas e indirectas de dióxido de carbono (CO₂) equivalente, proporcionadas en su Declaraciones de emisiones de GEI.

El propósito de esta verificación es revisar de manera independiente, la evidencia objetiva para determinar:

- Si las emisiones de CO₂e comunicadas, corresponden a las informadas en la Declaración de CO₂ de la organización.
- Si los datos reportados son precisos, completos consistentes, transparentes y libres de errores u omisiones materiales.

Roles y responsabilidades

ENAEX S.A. es responsable del sistema de información de GEI de la organización, del desarrollo y mantenimiento de registros y del procedimiento de reporte de acuerdo con su sistema y los requerimientos basados en el GHG Protocol; incluyendo los cálculos, información y determinaciones de las emisiones de GEI reportadas.

Es responsabilidad de SGS realizar una revisión de tercera parte, siguiendo los requisitos de la norma ISO 14064-3:2019 y expresar una opinión independiente de la Declaración de emisiones de GEI proporcionada por ENAEX S.A. en sus documentos: "OFICIAL_Calculadora Huella Carbono Chile 2024 (V3 29 abril 2025)", "Informe de verificación 07mayo" para el periodo 01/01/2024 – 31/12/2024.

La evaluación incluyó una revisión de escritorio² y una serie de videoconferencias. La verificación se basó en el alcance, objetivos y criterios acordados entre SGS y ENAEX S.A.

Alcance

ENAEX S.A. ha solicitado a SGS que lleve a cabo una revisión de tercera parte independiente de las emisiones de CO₂ de sus actividades, con el fin de establecer el cumplimiento de los requisitos del GHG Protocol, dentro del alcance de la verificación que se describe a continuación. Los datos y la información que respaldan la afirmación de CO₂e son de naturaleza histórica y están respaldados por evidencia suficiente.

Este compromiso cubre la verificación de emisiones de fuentes antropogénicas de Gases de Efecto Invernadero incluidas dentro de los límites de la organización y cumple con los requerimientos del Estándar Corporativo de Contabilidad y Reporte del GHG Protocol.

- El límite organizacional se estableció siguiendo el enfoque de control operacional.
- Descripción de las actividades, infraestructura, tecnologías y ubicación: Oficinas corporativas ubicadas en Santiago y Antofagasta, Planta Prillex: plantas de ácido nítrico y nitrato de amonio ubicada en Mejillones,

² No se realizó visita a terreno durante la presente verificación, debido a instrucciones del contrato celebrado entre SGS Chile Ltda. y ENAEX S.A.

Región de Antofagasta; Planta Río Loa: planta de explosivos ubicada en Calama, Región de Antofagasta; y Planta Punta Teatinos ubicada en La Serena, Región de Coquimbo; todas ellas en Chile.

- Los límites operacionales; emisiones y/o remociones de GEI incluidos en el inventario de emisiones GEI se detallan a continuación:
 - a) Alcance 1 - Emisiones Directas de GEI: consumo de diésel (fuentes fijas y móviles), consumo de gasolina (fuentes móviles), consumo de Gas Licuado de Petróleo (fuentes fijas), emisiones de proceso (planta de ácido nítrico y planta de concentración de ácido), tratamiento de aguas servidas y residuos peligrosos (detonación basura explosiva);
 - b) Alcance 2 - Emisiones Indirectas de GEI asociadas a la electricidad: compra de energía eléctrica de la red;
 - c) Alcance 3 – Otras Emisiones Indirectas de GEI: Categoría 1: Compra de bienes y servicios; Categoría 3: Actividades relacionadas con combustible y energía no incluidos en el alcance 1 o 2; Categoría 4. Transporte y distribución aguas arriba; Categoría 5. Residuos generados en la operación; Categoría 6. Viajes de negocios; Categoría 7. Transporte de empleados; Categoría 9. Transporte y distribución aguas abajo.
- Tipos de GEI incluidos: CO₂, N₂O y CH₄.
- Se revisó la información de GEI del siguiente periodo: 01/01/2024 – 31/12/2024.
- Destinatario de la Declaración de GEI: uso interno y publicación externa.

Nivel de aseguramiento de calidad y materialidad

El nivel de aseguramiento de calidad acordado es razonable.

SGS consideró como requisito para la revisión una materialidad inferior al 5%, basado en las necesidades de los usuarios previstos de la Declaración de GEI.

Conclusión

ENAEX S.A. proporcionó la Declaración de GEI basada en los requisitos del Estándar Corporativo de Contabilidad y Reporte del GHG Protocol. La información sobre GEI para el periodo 01/01/2024 – 31/12/2024 indica que las emisiones alcanzaron un total de **1.553.111 tCO₂e** según método basado en localización, las cuales fueron revisadas por SGS a un nivel de aseguramiento razonable para las categorías de emisiones directas e indirectas.

El enfoque de SGS está basado en el riesgo, recurriendo a una comprensión de los riesgos asociados con una modelación de la información de las emisiones de GEI y los controles existentes para mitigar dichos riesgos. Nuestra revisión incluyó la evaluación, sobre una base muestral, de evidencias relevantes al reporte voluntario sobre las emisiones. Los procedimientos de recopilación de evidencia incluyeron, pero sin limitarse a: analizar la integridad del inventario, entrevistas a los responsables para confirmar las conductas operativas y los

procedimientos operativos normalizados, revisión de los registros de combustibles, electricidad y otros para confirmar la exactitud de los datos, recalcular las emisiones, procedimientos analíticos entre la producción el consumo de energía y las emisiones.

SGS concluye, con un nivel de aseguramiento razonable, que la afirmación de CO₂e es materialmente correcta y es una representación fiel de las datos e información de CO₂e; la misma fue elaborada siguiendo los requerimientos del GHG Protocol.

Planeamos y llevamos a cabo nuestro trabajo para obtener la información, explicaciones y evidencias que consideramos necesarias, para proporcionar un nivel de seguridad razonable.

Esta Declaración debe ser interpretada juntamente con la Declaración de CO₂ equivalente de Enaex S.A.

Nota: Esta carta se emite, en nombre del cliente por SGS. Los hallazgos aquí registrados están basados en la revisión realizada por SGS. Pueden consultar una copia completa de esta Declaración, los hallazgos y conclusiones en ENAEX S.A., El Trovador 4253, piso 6, Las Condes, Santiago. Esta Declaración no exime al cliente del cumplimiento legal y reglamentos nacionales o regionales o de las directrices emitidas de conformidad con la normativa. Estipulaciones en contra no son vinculantes con SGS, y por lo tanto, SGS declina toda responsabilidad con otras partes distintas a su cliente.



SIGDO KOPPERS S.A.

PUERTO VENTANAS S.A



LRQA Independent Assurance Statement

Relating to Puerto Ventanas S.A. 's GHG Report for the Calendar Year 2024

Terms of Engagement

This Assurance Statement has been prepared for Puerto Ventanas S.A. (hereafter referred to as "PVSA")

LRQA was commissioned by PVSA to assure its GHG Report for the calendar year 2024, (hereafter referred to as "the Report").

The Report relates to direct GHG emissions from combustion and fugitive emissions, indirect GHG emissions from imported energy, and other indirect GHG emissions from transport, products and services purchased, and cargo transfer services.

PVSA 's geographical boundary are the port facilities located in camino s/n Ventanas, Región Valparaíso, Chile. The main activities of the organization include the loading and unloading of cargo on trucks, trains, conveyor belts, bulk cargo transfer systems to and from ships, cargo storage and transportation to clients. The GHG emissions have been consolidated using an operational control approach.

The GHG emissions related to capital goods were excluded from the Report because there were no available methods to quantify the emissions.

Management Responsibility

PVSA's Operation and Sustainability management with the Chief of Environment and Regulations Compliance, and the Continuous Improvement Coordinator were responsible for preparing the claim, Report and conformity with ISO 14064-1:2018, and for maintaining effective internal controls over the data and information disclosed. LRQA's responsibility was to carry out an assurance engagement on the Report in accordance with our contract with PVSA. The Report has been approved by and remains the responsibility of PVSA.

LRQA's Approach

Our verification has been conducted in accordance with ISO 14064-3:2019, '*Specification with guidance for verification and validation of greenhouse gas statements*' to provide limited assurance that GHG data as presented in the Report have been prepared in conformance with ISO 14064-1:2018, '*Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals*'.

To form our conclusions the assurance engagement was undertaken as a sampling exercise and covered the following activities:

- conducted guided visit to operations processes, and reviewed information related to the control of GHG emissions data and records;
- interviewed relevant staff of the organization responsible for managing GHG emissions data and records; and
- verified historical GHG emissions data and records at an aggregated level for the calendar year 2024, the base year has been redefined for 2024 due to the Port modifications.



Level of Assurance & Materiality

In accordance with our contract agreement, the assurance was conducted at a limited level of assurance at a materiality of 5% for all categories of GHG emissions. The opinion expressed in this Assurance Statement has been accordingly formed.

LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that the GHG emissions for categories 1, 2, 3, 4 and 5 disclosed in the Report as summarized in Table 1 below, are not materially correct, and that the Report has not been prepared in conformance with ISO 14064-1:2018.

LRQA's Recommendations

Although the verification was successfully conducted, certain recommendations have been identified to improve data quality:

- Strengthen the procedures for updating and accessing the sector emission factors, taking into account their significance in GHG emissions and the associated uncertainty;
- Reinforce internal audits of processes, encompassing data sources and backups, as well as the review of the inventory and the final GHG emissions report, to minimize the risk of errors and inaccuracies; and
- Report GHG emissions reduction, considering emissions and reductions from direct actions and associated targets.

Dated: 15 April 2025

Alejandra Llarena Astudillo

Lead Verifier, on behalf of LRQA

LRQA reference number: VPO00000211



Table 1. Summary of GHG Report for Calendar Year 2024 for Puerto Ventanas S.A.

Scope of GHG emissions	Tonnes CO ₂ e
Direct GHG emissions (Category 1)	627
Indirect GHG emissions from imported energy (Category 2, Location-based)*	1265
Indirect GHG emissions from transportation (Category 3)	538
Indirect GHG emissions from products used by the organization (Category 4)	1068
Indirect GHG emissions associated with the use of products from the organization (Category 5)	180101
*Location based and Market based are terminologies from Annex E of ISO 14064-1:2018.	

This Assurance Statement is subject to the provisions of this legal section:

LRQA Group Limited, its affiliates and subsidiaries, and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'LRQA'. LRQA assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract. The English version of this Assurance Statement is the only valid version. LRQA assumes no responsibility for versions translated into other languages.

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SIGDO KOPPERS S.A.

FEPASA S.A

INDEPENDENT GREENHOUSE GASES REVIEW REPORT

Santiago, April 21st, 2025

Ms. Vilma Jiménez
Encargada de Medio Ambiente
FERROCARRIL DEL PACÍFICO S.A.

From our consideration, the Greenhouse Gas Emissions Inventory considers:

Period: **01/01/2024 – 31/12/2024**

Company: **FERROCARRIL DEL PACÍFICO S.A.**

Address: San Francisco de Borja 670, Estación Central, Santiago

The review has been carried out in accordance with ISO 14064-3 and the quantification of the greenhouse gas inventory has been evaluated according to the requirements of the GHG Protocol. The reviewed GHG inventory represents a total amount of:

44.290 tCO₂e

For the following activities:

- a) Scope 1 - Direct GHG emissions:
 - Diesel and gasoline/petrol consumption (mobile sources and fixed sources)
- b) Scope 2 – Electricity Indirect GHG emissions:
 - Emissions associated with the purchase of electricity from the grid.
- c) Scope 3 – Other Indirect GHG emissions:
 - Category 1. Purchased goods and services
 - Category 3. Fuel- and energy-related activities (not included in scope 1 or scope 2)
 - Category 4. Upstream transportation and distribution
 - Category 5. Waste generated in operations
 - Category 6. Business travel
 - Category 7. Employee commuting

**Table 1: FERROCARRIL DEL PACÍFICO S.A. Greenhouse Gas Emissions for year 2024
(01/01/2024 – 31/12/2024)**

Scope 1 (tCO ₂ e)	Scope 2 (tCO ₂ e)	Scope 3 (tCO ₂ e)	Total Emissions Scope 1, 2 & 3 tCO ₂ e 2023 (*)
32.010	228	12.052	44.290

**Table 2: FERROCARRIL DEL PACÍFICO S.A. Other Indirect Greenhouse Gas Emissions (Scope 3) by category for
year 2024 (01/01/2024 – 31/12/2024)**

FERROCARRIL DEL PACÍFICO S.A.	Total Emissions 2024 (tCO₂e)
Scope 3 Categories	
Category 1. Purchased Goods and Services	607
Category 3. Fuel- and energy-related activities (not included in scope 1 or scope 2)	7.304
Category 4. Upstream Transportation and Distribution	3.643
Category 5. Waste Generated in Operation	107
Category 6. Business Travel	320
Category 7. Employee Commuting	71
Total	12.052

Authorized by:



Paulina Kellenberger

Greenhouse gases Lead Assessor

It should be noted that this verification does not constitute an audit, and, consequently, we do not express an audit opinion on this statement. This statement is not valid without the scope, roles and responsibilities, findings and conclusion of verification available on pages 3 and 4 of this letter.

Brief description of the verification process

SGS Chile Ltda. (hereafter SGS) has been contracted by Ferrocarril del Pacífico S.A. (hereafter FEPASA) for the verification of direct and indirect carbon dioxide (CO₂) equivalent emissions, provided in their GHG Assertion.

The purpose of this verification is to independently review objective evidence to determine:

- Whether the CO₂e emissions are as declared by in the organization's CO₂e Emissions Assertion.
- Whether the data reported are accurate, complete, consistent, transparent and free of material errors or omissions.

Roles and responsibilities

FEPASA is responsible for the GHG information system of the organization, the development and maintenance of records and the reporting procedure in accordance with its system and the requirements of GHG Protocol, including the calculation, information and determination of the reported GHG emissions.

It is the responsibility of SGS to conduct a third-party review following the requirements of ISO 14064-3:2019 and express an independent opinion of the GHG emissions Statement provided by FEPASA in the document: "Herramienta de cálculo. FEPASA 2024" and "Informe Fepasa HC 2024 16.04.25" for the period 01/01/2024 – 31/12/2024.

The assessment included a desk review, site visit to base Alameda located in Estación Central, Santiago and video conferences. The verification was based on the scope, objectives and criteria agreed between SGS and FEPASA.

Scope

FEPASA has requested SGS to carry out an independent third-party review of CO₂e emissions from its activities, in order to establish compliance with the requirements of GHG Protocol, within the scope of the verification described below. The data and information supporting the CO₂e Assertion are historical in nature and proven by adequate evidence.

This engagement covers the verification of emissions from anthropogenic sources of greenhouse gas included within the organization's boundary and meets the requirements of GHG Protocol A Corporate Accounting and Reporting Standard.

- The organizational boundary was established following the operational control approach.
- Description of the activities, infrastructure, technologies and locations: Offices and operational facilities located from Valparaíso Region to Los Lagos Region in Chile.
- The operational boundaries; GHG sources and/or removals included, are detailed below:
 - a) Scope 1: diesel and gasoline/petrol consumption (mobile sources and fixed sources);
 - b) Scope 2: Electricity Indirect GHG emissions: purchase of electricity from the grid;
 - c) Scope 3: Category 1. Purchased goods and services, Category 3. Fuel- and energy-related activities (not included in scope 1 or scope 2), Category 4. Upstream transportation and distribution,

Category 5. Waste generated in operations, Category 6. Business travel and Category 7. Employee commuting.

- Types of GHGs included: CO₂, N₂O, CH₄.
- GHG information for the following period was reviewed: 01/01/2024 – 31/12/2024.
- Intended user of the GHG declaration: internal use and external publication.

Level of assurance and materiality

The agreed level of assurance is reasonable.

The materiality required of the assessment was considered by SGS to be below 5%, based on the needs of the intended user of the GHG Assertion.

Conclusion

FEPASA provided their GHG Assertion based on the requirements of GHG Protocol. The GHG emissions for the period 01/01/2024 – 31/12/2024 are **44.290 tCO₂e**, and it was verified that are fairly stated.

SGS's approach is risk-based, drawing on an understanding of the risks associated with modelling GHG emission information and the controls in place to mitigate these risks. Our review included assessment, on a sample basis, of evidence relevant to the voluntary reporting on emission information. The evidence-gathering procedures included but were not limited to: inspect the completeness of the inventory, interview to relevant personnel to confirm operational behavior and standard operating procedures, sampling of electricity, fuel and others records to confirm accuracy of source data into calculations, recalculations of emissions, analytical procedures between production, energy consumption and emissions.

SGS concludes, with reasonable assurance that the presented CO₂ equivalent Assertion is materially correct and is a fair representation of the CO₂ equivalent data and information and is prepared following the requirements GHG Protocol.

We planned and performed our work to obtain the information, explanations and evidence that we considered necessary, to provide a reasonable level of assurance.

This statement shall be interpreted with the CO₂ equivalent Assertion of FEPASA. as a whole.

Note: This Letter is issued, on behalf of Client, by SGS. The findings recorded here are based upon an audit performed by SGS. A full copy of this review, findings and verification conclusions may be consulted at FERROCARRIL DEL PACÍFICO S.A., San Francisco de Borja 670, Estación Central, Santiago. This Letter does not relieve Client from compliance with any bylaw, national or regional acts and regulations or with any guidelines issued pursuant to such regulations. Stipulations to the contrary are not binding on SGS and SGS shall have no responsibility vis-à-vis parties other than its Client.



SIGDO KOPPERS S.A.

SKIC GROUP

Declaración de Verificación de Inventario de Gases de Efecto Invernadero

Otorgado a

INGENIERÍA Y CONSTRUCCIÓN SIGDO KOPPERS SAC

Rua Alexandre Dumas, 2100, Chácara Santo Antonio, São Paulo, Brasil

Bureau Veritas Certification Chile S.A. ha llevado a cabo la verificación de la cantidad de emisiones de gases de efecto invernadero de la organización mencionada, según la norma ISO 14064/3:2019. La cuantificación y el informe de emisiones de Gases de Efecto Invernadero, se evidencia que están en concordancia con los requisitos de la norma que se detalla a continuación.

ESTANDAR ISO 14064/1: 2019 Alcance de la verificación

Emisiones de GEI	t CO ₂ eq
Alcance 1 Emisiones directas	13.140
Alcance 2 Emisiones indirectas por energía	519
Alcance 3 Emisiones indirectas por transporte	6.670
Alcance 4 Emisiones indirectas de GEI por productos utilizados por la empresa	11.250
TOTAL DE EMISIONES	31.579

Período del informe: 01/ENE/2024 al 31/DIC/2024

Nivel de Confianza: LIMITADO

Declaración N°: 002 Versión 0

Fecha de emisión: 14/03/2025

Firmado en Nombre de

Bureau Veritas Certification Chile S.A.

Declaración de Verificación de Inventario de Gases de Efecto Invernadero

Otorgado a

INGENIERÍA Y CONSTRUCCIÓN SIGDO KOPPERS SAC

Málaga 120, 7550133 Las Condes, Región Metropolitana

Bureau Veritas Certification Chile S.A. ha llevado a cabo la verificación de la cantidad de emisiones de gases de efecto invernadero de la organización mencionada, según la norma Nch- ISO 14064/3:2019. La cuantificación y el informe de emisiones de Gases de Efecto Invernadero, se evidencia que están en concordancia con los requisitos de la norma que se detalla a continuación.

ESTANDAR Nch - ISO 14064/1: 2019 Alcance de la verificación

Emisiones de GEI	t CO ₂ eq
Categoría 1 Emisiones Directas de GEI.	8,106.59
Categoría 2 Emisiones Indirectas de Electricidad Importada	192.87
Categoría 3 Emisiones Indirectas de GEI	5.644,89
Alcance 4 Emisiones indirectas de GEI por productos utilizados por la empresa	181.423,65
TOTAL DE EMISIONES	195,368.00

Período del informe: 01/ENE/2024 al 31/DIC/2024

Nivel de Confianza: LIMITADO

Declaración N°: 003 Versión 0

Fecha de emisión: 14/03/2025

Firmado en Nombre de
Bureau Veritas Certification Chile S.A.

Declaración de Verificación de Inventario de Gases de Efecto Invernadero

Otorgado a

INGENIERÍA Y CONSTRUCCIÓN SIGDO KOPPERS SAC

Amador Merino Reyna 281 OF 801, Lima, Perú

Bureau Veritas Certification Chile S.A. ha llevado a cabo la verificación de la cantidad de emisiones de gases de efecto invernadero de la organización mencionada, según la norma ISO 14064/3:2019. La cuantificación y el informe de emisiones de Gases de Efecto Invernadero, se evidencia que están en concordancia con los requisitos de la norma que se detalla a continuación.

ESTANDAR ISO 14064/1: 2019 Alcance de la verificación

Emisiones de GEI	t CO ₂ eq
Alcance 1 Emisiones directas	35.48
Alcance 2 Emisiones indirectas por energía	15.80
Alcance 3 Emisiones indirectas por transporte	143.46
Alcance 4 Emisiones indirectas de GEI por productos utilizados por la empresa	373.18
TOTAL DE EMISIONES	567.92

Período del informe: 01/ENE/2024 al 31/DIC/2024

Nivel de Confianza: LIMITADO

Declaración N°: 004 Versión 0

Fecha de emisión: 14/03/2025


Firmado en Nombre de
Bureau Veritas Certification Chile S.A.



SIGDO KOPPERS S.A.

SKC GROUP

REPORTE DE REVISIÓN INDEPENDIENTE DE GASES DE EFECTO INVERNADERO PARA EL PROGRAMA HUELLA CHILE

SGS 645750 / SKC S.A.

El Inventario de Emisiones de Gases de Efecto Invernadero considera:

Periodo: **01/01/2024 – 31/12/2024**

Empresa: **SKC S.A.**

Dirección: Av. Presidente Eduardo Frei Montalva 15800, Lampa, Región Metropolitana

La revisión ha sido realizada de acuerdo con la norma ISO 14064-3, y se ha evaluado la cuantificación del Inventario de Emisiones Gases de Efecto Invernadero (GEI) según los requisitos de la norma ISO 14064-1 exigidos por el programa HuellaChile. El inventario evaluado representa una cantidad total de:

7.804,05 tCO₂e

Para las siguientes categorías de emisiones:

Tabla 1. *Categorías de emisiones consideradas para el Inventario de Emisiones de GEI*

<i>Categoría</i>	<i>Actividades</i>
Emisiones directas de GEI	<i>Combustión estacionaria: casinos (cocinas) y camarines (agua caliente para baños y duchas) a GLP</i>
	<i>Combustión móvil: vehículos a diésel y gasolina, grúas horquilla a GLP</i>
	<i>Emisiones Fugitivas: gases refrigerantes de equipos de climatización</i>
Emisiones indirectas de GEI causadas por energía importada	<i>Electricidad importada: Consumo eléctrico del SEN</i>
Otras emisiones indirectas de GEI causadas por	<i>Transporte: Transporte de insumos (vía terrestre, aérea y marítima), transporte de trabajadores y viajes de negocios. Bienes y servicios utilizados: Consumo y tratamiento de agua, adquisición de combustible y disposición de residuos generados</i>

En el cálculo de la huella de carbono SKC S.A. se han considerado las siguientes razones sociales que operan en las mismas instalaciones: SK Rental S.A., SK Rental Internacional Ltda., SK Rental Group S.A., SK Comercial SpA., SKC RED SpA, Equipo y Soluciones Logística SpA., SK Rental Marketplace SpA. y Gestión de Activos MOC SpA.

Tabla 2. Emisiones de Gases de Efecto Inventario

Categoría/subcategorías	Emisiones (tCO ₂ e) (*)
Emisiones directas de GEI	1.607,54
<i>Combustión estacionaria</i>	32,20
<i>Combustión móvil</i>	1.575,33
<i>Emisiones fugitivas</i>	0
Emisiones indirectas de GEI causadas por energía importada	470,95
<i>Electricidad importada</i>	470,95
Otras emisiones indirectas de GEI causadas por	5.725,56
<i>Transporte</i>	5.116,85
<i>Bienes y servicios utilizados</i>	608,71
Total de emisiones de GEI	7.804,05 *

(*) Dado el número de decimales permitidos en la plataforma HuellaChile, existe una diferencia en el segundo decimal de los totales de la herramienta de cálculo de SKC S.A. y el descargable del programa HuellaChile.

Autorizado por:



Paulina Kellenberger
Auditor de Gases de Efecto Invernadero

Fecha de Reporte de Revisión Independiente: 21 de abril de 2025

Esta declaración no es válida sin el alcance, objetivos, criterios y hallazgos de la revisión independiente disponibles en las páginas 3 -5 de la presente declaración.

Breve descripción del proceso de revisión independiente

SGS Chile (en adelante SGS) ha sido contratado por SKC S.A. para la revisión de sus emisiones de dióxido de carbono (CO₂) directo e indirecto proporcionadas en su declaración de emisiones indicadas en el Informe de Cuantificación de Emisiones de Gases de Efecto Invernadero que cubre las emisiones de CO₂ equivalente (CO₂e).

Roles y responsabilidades

La Dirección de SKC S.A. es responsable del sistema de información de GEI de la organización, del desarrollo y mantenimiento de registros y del procedimiento de reporte de acuerdo con este sistema y los requerimientos de la ISO 14064-1, incluyendo el cálculo y la determinación de la información de emisiones y de las emisiones de GEI reportadas.

Es responsabilidad de SGS realizar una Revisión independiente de GEI, de las emisiones proporcionadas por SKC S.A. en el periodo: 01/01/2024 - 31/12/2024.

SGS llevó a cabo una revisión de tercera parte siguiendo los requisitos de ISO 14064-3:2019 (NCh-ISO 14064:2019), de la Declaración de CO₂e proporcionada por el cliente.

La evaluación incluyó una revisión documental y una serie de video-conferencias. La revisión se basó en el alcance, objetivos y criterios de revisión acordados entre SKC S.A. y SGS.

Este informe ha sido preparado exclusivamente en interés de SKC S.A., de acuerdo con los términos establecidos en la Propuesta Técnica.

Nivel de aseguramiento

El nivel de aseguramiento acordado es razonable.

Alcance

SKC S.A. ha solicitado a SGS la realización de una revisión de tercera parte independiente de las emisiones de CO₂e de sus actividades, para establecer la conformidad con los requisitos de la ISO 14064-1, dentro del alcance de la revisión descrito a continuación. Los datos y la información que soportan la Declaración de CO₂e son de naturaleza histórica y comprobados con evidencias.

Este compromiso cubre la revisión de las emisiones de fuentes antropogénicas de gases de efecto invernadero incluidas dentro de los límites de la organización y cumple con los requisitos de la norma ISO 14064-1.

- El límite organizacional se estableció siguiendo el enfoque de control operacional.
- Título o descripción de las actividades: oficinas, talleres, almacenes e instalaciones operativas de SKC S.A. y sus razones sociales asociadas (SK Rental S.A., SK Rental Internacional Ltda., SK Rental Group S.A., SK Comercial SpA., SKC RED SpA, Equipo y Soluciones Logística SpA., SK Rental Marketplace SpA., Gestión de Activos MOC SpA).
- Infraestructura física, actividades, y procesos de la organización: talleres, almacenes y oficinas; casa matriz ubicada en Lampa – Región Metropolitana y sucursales en las siguientes ciudades: Iquique, Antofagasta, Calama, Copiapó, La Serena, Rancagua, Talca, Concepción, Temuco, Osorno y Puerto Montt.
- Fuentes, sumideros y/o depósitos de GEI incluidos:
 - o *Emisiones directas de GEI*: combustión estacionaria (GLP para agua caliente en camarines y cocinas en casinos) y combustión móvil (vehículos a diésel y gasolina; grúas horquilla a GLP)
 - o *Emisiones indirectas de GEI causadas por energía importada*: electricidad importada del SEN.
 - o *Otras emisiones indirectas de GEI causadas por*: Transporte (transporte de trabajadores, viajes de negocios y transporte de maquinaria y repuestos de importación vía terrestre, aérea y marina y, Bienes y Servicios utilizados (consumo y tratamiento de agua, adquisición de combustibles, disposición de residuos).
- Tipos de GEI: CO₂, N₂O, CH₄.
- Acciones dirigidas: no se registran acciones dirigidas.
- Se verificó la información de GEI del periodo siguiente: 01/01/2024 – 31/12/2024.
- Destinatario del Reporte de Revisión Independiente: uso interno y HuellaChile.

Objetivo

El propósito de esta revisión fue comprobar, de manera independiente, las evidencias objetivas para determinar:

- Si las emisiones de CO₂e son efectivamente las informadas en la Declaración de emisiones de CO₂e de la organización.
- Que los datos reportados son precisos, completos, coherentes, transparentes y libres de errores u omisiones materiales.

Criterios

Los criterios contra los cuales se realizó la revisión son los requisitos de la norma ISO 14064-1:2018.

Materialidad

SGS consideró como requisito para la revisión una materialidad inferior al 5% basado en las necesidades de los usuarios previstos de la Declaración de GEI.

Debilidades – Limitaciones y/o Calificación

Se recomienda a la organización mejorar la documentación que da cumplimiento a los requisitos 5.2.3, 6.4.2, 8.1 y 8.2 de la norma ISO 14064-1.

Conclusión

SKC S.A. proporcionó la Declaración de GEI basada en los requisitos de la norma ISO 14064-1. La información sobre GEI para el periodo 01/01/2024 al 31/12/2024 indica que las emisiones alcanzaron un total de **7.804,05 tCO₂e**; las cuales fueron revisadas por SGS a un nivel razonable de garantía para las categorías de emisiones directas e indirectas.

El enfoque de SGS está basado en el riesgo, recurriendo a una comprensión de los riesgos asociados con una modelación de la información de las emisiones GEI y los controles existentes para mitigar dichos riesgos. Nuestra revisión incluyó la evaluación, sobre una base muestral, de evidencias relevantes al reporte voluntario sobre las emisiones.

SGS concluye, para las categorías de emisiones con un nivel de aseguramiento razonable, que la afirmación de CO₂e es materialmente correcta y es una representación fiel de los datos e información de CO₂e; la misma fue elaborada siguiendo los requisitos de la norma ISO 14064-1.

Se realizó la planificación y levantamiento de información y, evidencias consideradas necesarias para proporcionar un nivel de aseguramiento razonable para las categorías de emisiones directas e indirectas de CO₂e para el periodo 01/01/2024 al 31/12/2024.

Esta Revisión debe ser interpretada juntamente con la aserción de CO₂e de SKC S.A. en sus Informes: Cuantificación de Emisiones de Gases de Efecto Invernadero, SKC, 2024.

Nota: Esta Declaración se emite, en nombre del cliente, por SGS bajo las condiciones generales para los servicios de Validación y Verificación de GEI. Los hallazgos aquí registrados están basados en la auditoría llevados a cabo por SGS. Pueden consultar una copia completa de esta Declaración, los hallazgos y conclusiones de verificación en SKC S.A. Av. Presidente Eduardo Frei Montalva 15800, Lampa, Región Metropolitana. Esta Declaración no exime al cliente del cumplimiento legal y reglamentos nacionales o regionales o de las directrices emitidas de conformidad con la normativa. Estipulaciones en contra no son vinculantes con SGS, y, por lo tanto, SGS declina toda responsabilidad con otras partes distintas a su cliente.