8: TAHMOOR COAL MINE - FACILITY

Name	TAHMOOR COAL MINE
Facility Street Address	Remembrance Drive TAHMOOR New South Wales 2573 AUSTRALIA
Geographic Coordinates	Latitude 34.250S / Longitude 150.576E
Facility location	-
Activity location	New South Wales
Location description	-
Activity description	-
ANZSIC Code	060 - Coal mining
Operational Control	TAHMOOR COAL PTY LTD
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2022 - 30/06/2023
Grid Connected Electricity Generator	No

The following tables summarise total greenhouse gas emissions from operation of this facility during the period that it was under the operational control of TAHMOOR COAL PTY LTD.

GREENHOUSE GAS EMISSIONS (t CO2-e)

Scope 1	Scope 2	Total of Scope 1 and Scope 2
992,938	79,867	1,072,805

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)

Energy Consumed Total	Energy Consumed Net	Energy Produced
1,724,923	1,724,923	48,918,601

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO2-e)

Carbon Dioxide CO2	Methane CH4	Nitrous Oxide N2O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF6	Total
192,421	800,267	245	-	-	5	992,938

SCOPE 1 EMISSIONS

EC = Energy Content Factor, Z = Energy Content, EF = Emission Factor

Source Activity	Fuel / Criterion	Quantity	Energy Values (EC & Z)	Gas / Method	Scope 1 Emissions (t CO2-e)
Source category: Fuel combustion **Source of emissions:** Stationary and Transport energy purposes (excluding electricity generation) **Activity type:** Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	**Fuel / Energy commodity:** Diesel oil **Fuel usage:** combustion **Criterion:** A	1,418.552 kL	**EC (GJ/Unit):** 38.6 **Z (GJ):** 54,756	**Gas:** CO2 **EF (kg CO2-e / GJ):** 69.9 **Method:** Method 1	3,827
				Gas: CH4 **EF (kg CO2-e / GJ):** 0.1 **Method:** Method 1	5
				Gas: N2O **EF (kg CO2-e / GJ):** 0.2 **Method:** Method 1	11

Source category: Fuel combustion **Source of emissions:** Stationary and Transport energy purposes (excluding electricity generation) **Activity type:** Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	**Fuel / Energy commodity:** Diesel oil - Transport post-2004 **Fuel usage:** combustion **Criterion:** A	2.685 kL	**EC (GJ/Unit):** 38.6 **Z (GJ):** 104	**Gas:** CO2 **EF (kg CO2-e / GJ):** 69.9 **Method:** Method 1	7
				Gas: CH4 **EF (kg CO2-e / GJ):** 0.01 **Method:** Method 2	0
				Gas: N2O **EF (kg CO2-e / GJ):** 0.5 **Method:** Method 2	0
Source category: Fuel combustion **Source of emissions:** Stationary and Transport energy purposes (excluding electricity generation) **Activity type:** Emissions released from combustion of petroleum based oils or greases	**Fuel / Energy commodity:** Petroleum based oils (other than petroleum based oil used as fuel) **Fuel usage:** combustion **Criterion:** A	152.81 kL	**EC (GJ/Unit):** 38.8 **Z (GJ):** 5,929	**Gas:** CO2 **EF (kg CO2-e / GJ):** 13.9 **Method:** Method 1	82
Source category: Fuel combustion **Source of emissions:** Stationary and Transport energy purposes (excluding electricity generation) **Activity type:** Emissions released from combustion of petroleum based oils or greases	**Fuel / Energy commodity:** Petroleum based greases **Fuel usage:** combustion **Criterion:** A	5.686 kL	**EC (GJ/Unit):** 38.8 **Z (GJ):** 221	**Gas:** CO2 **EF (kg CO2-e / GJ):** 3.5 **Method:** Method 1	1
		Source Total	61,010		3,933
Source category: Fugitive emissions **Source of emissions:** Underground mines **Activity type:** Emissions released from coal mine waste gas flared	**Fuel / Energy commodity:** Coal mine waste gas that is captured for combustion **Fuel usage:** combustion	33,688,294.302 m3	**EC (GJ/Unit):** 0.0377 **Z (GJ):** 1,270,049	**Gas:** CO2 **EF (kg CO2-e / GJ):** 51.9 **Method:** Method 2	63,886
				Gas: CH4 **EF (kg CO2-e / GJ):** 4.6 **Method:** Method 2	3,586

				Gas: N2O **EF (kg CO2-e / GJ):** 0.3 **Method:** Method 2	234
Source category: Fugitive emissions **Source of emissions:** Underground mines **Activity type:** Fugitive emissions from extraction of coal	-	-	-	**Gas:** CO2 **EF (kg CO2-e / GJ):** - **Method:** Method 4	124,618
				Gas: CH4 **EF (kg CO2-e / GJ):** - **Method:** Method 4	749,295
Source category: Fugitive emissions **Source of emissions:** Underground mines **Activity type:** Fugitive emissions from post mining activities	-	-	-	**Gas:** CH4 **EF (kg CO2-e / GJ):** 0.019 **Method:** Method 1	47,381
			Source Total	1,270,049	989,000
Source category: Industrial processes **Source of emissions:** Emissions of hydrofluorocarbons and sulphur hexafluoride gases **Activity type:** Emissions of sulphur hexafluoride gases from gas insulated switchgear and circuit breaker applications	-	557.749 tonnes	-	**Gas:** SF6 **EF (kg CO2-e / GJ):** - **Method:** Method 1	5
			Source Total	-	5
			Total	1,331,059	992,938

MATTERS TO BE IDENTIFIED (MTBI) PER SOURCE

Source of Emissions	MTBI	Methods	Activity	Activity Value	Unit
Underground mines	the tonnes of coal mine waste gas (CO2-e) flared	Method 1	-	400775	tonnes (CO2-e) (flared)
Underground mines	the tonnes of raw coal produced	Method 4	Fugitive emissions from extraction of coal	2493727	tonnes
		Method 1	Fugitive emissions from post mining activities	2493727	tonnes
	the tonnes of carbon dioxide captured for energy production on site	Method 4	Fugitive emissions from extraction of coal	0	tonnes (CO2-e)
	the tonnes of methane (CO2-e) captured for energy production on site	Method 4	Fugitive emissions from extraction of coal	0	tonnes (CO2-e)

	the tonnes of carbon dioxide captured and transferred off site	Method 4	Fugitive emissions from extraction of coal	16831	tonnes (CO2-e)
	the tonnes of methane (CO2-e) captured and transferred off site	Method 4	Fugitive emissions from extraction of coal	276066	tonnes (CO2-e)
	the tonnes of carbon dioxide flared	Method 4	Fugitive emissions from extraction of coal	23429	tonnes (CO2-e)
	the tonnes of methane (CO2-e) flared	Method 4	Fugitive emissions from extraction of coal	400775	tonnes (CO2-e)
	whether the mine is a gassy mine or a non-gassy mine	Method 1	Fugitive emissions from post mining activities	Gassy	

SCOPE 2 EMISSIONS

Activity Type	Quantity	Units	Emission Factor (kg CO2-e / unit)	Scope 2 Emissions (t CO2-e)
Purchase and loss of electricity from main electricity grid in a State or Territory	109,406,761	kWh	0.73	79,867
			Total	79,867

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR TRANSPORT

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Diesel oil - Transport post-2004	combustion	A	-	2.685	kL	38.6	104
							Total	104

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR PURPOSES OTHER THAN PRODUCING ELECTRICITY, PRODUCING A CHEMICAL OR METAL PRODUCT OR FOR TRANSPORT

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Diesel oil	combustion	A	-	1,418.552	kL	38.6	54,756
Emissions released from combustion of petroleum based oils or greases	Petroleum based oils (other than petroleum based oil used as fuel)	combustion	A	-	152.81	kL	38.8	5,929
Emissions released from combustion of petroleum based oils or greases	Petroleum based greases	combustion	A	-	5.686	kL	38.8	221
Emissions released from coal mine waste gas flared	Coal mine waste gas that is captured for combustion	combustion	-	-	33,688,294.302	m3	0.0377	1,270,049
							Total	1,330,955

ENERGY CONSUMED BY MEANS OTHER THAN COMBUSTION

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Purchase and loss of electricity from main electricity grid in a State or Territory	-	-	-	-	109,406,761	kWh	0.0036	393,864
							Total	393,864

ENERGY PRODUCED

Activity Type	Fuel / Energy Commodity	Primary/Secondary	Amount	Units	Energy Content Factor	Converted Amount (GJ)
Energy content of fuel produced	Coking coal	Primary	1,558,656	tonnes	30	46,759,680
Energy content of fuel produced	Coal mine waste gas that is captured for combustion	Primary	33,688,294.302	m3	0.0377	1,270,049
Energy content of fuel produced	Coal mine waste gas that is captured for combustion	Primary	23,577,514.05	m3	0.0377	888,872
					Total	48,918,601

CORPORATE GROUP THRESHOLD MET

The corporate group of LIBERTY PRIMARY METALS AUSTRALIA PTY LTD has met a corporate group threshold prescribed in sections 13 (1)(a),(b), or (c) of the NGER Act during the reporting year and is reporting under Divisions 4.3 to 4.5 of the NGER Regulations (regulation 4.03).

PERCENTAGE REPORTING FOR SMALL FACILITIES

This Report contains greenhouse gas emissions and energy production and consumption data that is estimated as a percentage of the corporate group's total greenhouse gas emissions and energy production and consumption data for facilities which are below the thresholds in regulation 4.26 of the NGER Regulations, and that the reporter has determined is to be reported in accordance with this regulation.

ATTACHMENTS LIST

Text	Description	Type
LPMA S19 attachment FY23 - 12Oct23 VA.0.pdf	LPMA support documentation	Other