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Clean Energy Regulator

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1
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NATIONAL GREENHOUSE AND ENERGY REPORTING
SECTION 19 - ENERGY AND EMISSIONS REPORT
WESTERN AREAS LIMITED
FOR THE REPORTING YEAR 2018 – 2019

REPORT UNDER SECTION 19 OF THE *NATIONAL GREENHOUSE AND ENERGY REPORTING ACT 2007*

Corporations registered under Division 3 of Part 2 of the *National Greenhouse and Energy Reporting Act 2007* (the NGER Act) are required to provide a report to the Clean Energy Regulator (the Regulator) by 31 October each year in respect of the previous financial year relating to:

- greenhouse gas emissions; and
- energy production; and
- energy consumption;

from the operation of facilities under the operational control of the corporation and entities that are members of the corporation's group, during that financial year.

A report under section 19 of the NGER Act must be given in a manner and form approved by the Regulator and set out the information specified in the *National Greenhouse and Energy Reporting Regulations 2008* (the NGER Regulations). The report must also be based on the methods, or methods which meet criteria, set out in the *National Greenhouse and Energy Reporting (Measurement) Determination 2008* (the Measurement Determination).

This report is an approved form in which a report under section 19 of the NGER Act may be given to the Regulator.

Giving false or misleading information is a serious offence.

SUBMITTING THE REPORT

The approved manner for submission of the section 19 report is completion and submission of the report in the Emissions and Energy Reporting System.

Your report must be submitted to the Regulator by 31 October 2019.

If a copy of this report is printed in hardcopy form for any purpose it does not represent, nor can it be treated as, an official version of the report submitted to the Regulator.

CONTROLLING CORPORATION DETAILS

Name	WESTERN AREAS LIMITED
Australian Business Number (ABN)	68091049357
Australian Company Number (ACN)	-
Australian Registered Body Number (ARBN)	-
Trading Name	-
Head office postal address:	
Postal address line 1	Level 2
Postal address line 2	2 Kings Park Rd
Postal address line 3	-
Postal city/suburb	WEST PERTH
Postal state	Western Australia
Postal postcode	6005
Postal country	AUSTRALIA
Head office street address:	
Street address line 1	Level 2
Street address line 2	2 Kings Park Rd
Street address line 3	-
Street city/suburb	WEST PERTH
Street state	Western Australia
Street postcode	6005
Street country	AUSTRALIA

EXECUTIVE OFFICER (OR EQUIVALENT) DETAILS

Name	Dan Lougher
Position	CEO
Phone	08 9334 7777
Mobile	-
Fax	-
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Postal address line 1	PO Box 1891
Postal address line 2	-
Postal address line 3	-
Postal city/suburb	WEST PERTH
Postal state	Western Australia
Postal postcode	6872
Postal country	AUSTRALIA

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Postal address line 3	-
Postal city/suburb	Fremantle
Postal state	
Postal postcode	6160
Postal country	AUSTRALIA

WESTERN AREAS LIMITED EMISSION AND ENERGY REPORT SUMMARY

The table below reports total scope 1 and scope 2 greenhouse gas emissions, energy produced and energy consumed by the corporate group WESTERN AREAS LIMITED for the 2018 - 2019 reporting period.

GREENHOUSE GAS EMISSIONS (t CO2-e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
20,370	45,735	66,105

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
552,414	534,358	18,056

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
20,271	27	68	-	-	4	20,370

WESTERN AREAS LIMITED EMISSION AND ENERGY REPORT DETAIL

Corporate Structure

The table below lists the entities whose greenhouse gas emissions and energy production and energy consumption are included in the S19 report.

No.	Entity Details	Scope 1 Emissions (t CO2-e)	Scope 2 Emissions (t CO2-e)	Energy Consumed Total (GJ)	Energy Consumed Net (GJ)	Energy Produced (GJ)
1	Australian Nickel Investments Pty Ltd Type: Group Member	6,820	-	115,197	97,141	18,056
2	Australian Nickel Investments Pty Ltd Type: Group Member Cosmos Nickel Operations Type: Facility	6,820	0	115,197	97,141	18,056
3	BioHeap Ltd Type: Facility	0	52	268	268	0
4	Forrestania Nickel Operations Type: Facility	13,010	45,622	428,957	428,957	0
5	SA Exploration Type: Facility	540	0	7,676	7,676	0
6	Western Areas Perth Office Type: Facility	0	61	316	316	0

1: AUSTRALIAN NICKEL INVESTMENTS PTY LTD - GROUP MEMBER

Name	Australian Nickel Investments Pty Ltd
Australian Business Number (ABN)	-
Australian Company Number (ACN)	-
Australian Registered Body Number (ARBN)	-
Trading Name	-

The following tables summarise total greenhouse gas emissions and energy data for all facilities that were under the operational control of this group member during the reporting period.

GREENHOUSE GAS EMISSIONS (t CO2-e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
6,820	-	6,820

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
115,197	97,141	18,056

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
6,790	9	21	-	-	-	6,820

2: COSMOS NICKEL OPERATIONS - FACILITY

Name	Cosmos Nickel Operations
Facility Street Address	50km north of Leinster via Leinster, Mt Keith Road Leinster Western Australia 6437 AUSTRALIA
Geographic Coordinates	Latitude 27.592S / Longitude 120.581E
Facility location	-
Activity location	Western Australia
Location description	-
Activity description	-
ANZSIC Code	080 - Metal ore mining
Operational Control	Australian Nickel Investments Pty Ltd
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2018 - 30/06/2019
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 Australian Nickel Investments Pty Ltd.

GREENHOUSE GAS EMISSIONS (t CO ₂ -e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
6,820	-	6,820

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
115,197	97,141	18,056

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO ₂ -e)						
Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
6,790	9	21	-	-	-	6,820

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 CO ₂ -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	1,119.728 kL	EC (GJ/Unit): 38.6 Z (GJ): 43,222	Gas: CO ₂ EF (kg CO₂-e / GJ): 69.9 Method: Method 1	3,021	
				Gas: CH ₄ EF (kg CO₂-e / GJ): 0.1 Method: Method 1	4	
				Gas: N ₂ O EF (kg CO₂-e / GJ): 0.2	9	

				Method: Method 1	
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	97.459 kL	EC (GJ/Unit): 38.6 Z (GJ): 3,762	Gas: CO2 EF (kg CO2-e / GJ): 69.9 Method: Method 1	263
				Gas: CH4 EF (kg CO2-e / GJ): 0.01 Method: Method 2	0
				Gas: N2O EF (kg CO2-e / GJ): 0.6 Method: Method 2	2
Source Total			46,984		3,299
Source category: Fuel combustion Source of emissions: Emissions released from fuel use by certain industries (including electricity generation) Activity type: Electricity production - Liquid fuels	Fuel / Energy commodity: Diesel oil Fuel usage: combustion Criterion: A	1,299.396 kL	EC (GJ/Unit): 38.6 Z (GJ): 50,157	Gas: CO2 EF (kg CO2-e / GJ): 69.9 Method: Method 1	3,506
				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	10
Source Total			50,157		3,521
Total			97,141		6,820

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR PRODUCING ELECTRICITY

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Electricity production - Liquid fuels	Diesel oil	combustion	A	-	1,299.396	kL	38.6	50,157
Total								50,157

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	-	97.459	kL	38.6	3,762
Total								3,762

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	-	1,119.728	kL	38.6	43,222
Total								43,222

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)
Energy consumed (not combusted)	Electricity	non-combustion	-	-	18,056.407	GJ	1	18,056
Total								18,056

ELECTRICITY PRODUCED

Activity Type	Usage	Amount	Units	Energy Content Factor (GJ/Unit)	Converted Energy Content Amount (GJ)
Electricity (thermal generation)	For use onsite	5,015,668.56	kWh	0.0036	18,056
Total					18,056

Incidental Emissions and Energy

This Report contains greenhouse gas emissions and energy information from facilities that is incidental to the operation of the facility and reported in accordance with NGER Regulation 4.27.

The following tables summarise total greenhouse gas emissions and energy that are incidental to the operation of this facility during the reporting period.

GREENHOUSE GAS EMISSIONS (t CO₂-e)

Scope 1	Scope 2	Total of Scope 1 and Scope 2
-	-	-

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)

Energy Consumed Total	Energy Consumed Net	Energy Produced
18,056	-	18,056

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

Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
-	-	-	-	-	-	-

INCIDENTAL ENERGY CONSUMED BY A MEANS OTHER THAN COMBUSTION

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Incidental Energy Content (GJ)
Energy consumed (not combusted)	Electricity	non-combustion	-	-	18,056.407	GJ	1	18,056
Total								18,056

INCIDENTAL ELECTRICITY PRODUCED

Activity Type	Usage	Amount	Units	Energy Content Factor (GJ/Unit)	Converted Energy Content Amount (GJ)
Electricity (thermal generation)	For use onsite	5,015,668.56	kWh	0.0036	18,056
Total					18,056

3: BIOHEAP LTD - FACILITY

Name	BioHeap Ltd
Facility Street Address	3 2 Production Rd CANNING VALE Western Australia 6155 AUSTRALIA
Geographic Coordinates	Latitude 32.066S / Longitude 115.915E
Facility location	-
Activity location	Western Australia
Location description	-
Activity description	-
ANZSIC Code	109 - Other mining support services
Operational Control	WESTERN AREAS LIMITED
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2018 - 30/06/2019
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 WESTERN AREAS LIMITED.

GREENHOUSE GAS EMISSIONS (t CO2-e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
-	52	52

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
268	268	-

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
-	-	-	-	-	-	-

SCOPE 2 EMISSIONS				
Activity Type	Amount	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	74,432	kWh	0.7	52
Total				52

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	-	-	-	-	74,432	kWh	0.0036	268
Total								268

4: FORRESTANIA NICKEL OPERATIONS - FACILITY

Name	Forrestania Nickel Operations
Facility Street Address	Hyden - Norseman Rd HYDEN Western Australia 6359 AUSTRALIA
Geographic Coordinates	Latitude 32.580S / Longitude 119.737E
Facility location	-
Activity location	Western Australia
Location description	-
Activity description	-
ANZSIC Code	080 - Metal ore mining
Operational Control	WESTERN AREAS LIMITED
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2018 - 30/06/2019
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 WESTERN AREAS LIMITED.

GREENHOUSE GAS EMISSIONS (t CO ₂ -e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
13,010	45,622	58,632

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
428,957	428,957	-

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO ₂ -e)						
Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
12,945	17	44	-	-	4	13,010

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 CO ₂ -e)
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of gaseous fuels - Stationary energy purposes	Fuel / Energy commodity: Gaseous fossil fuels other than those mentioned in items 17 to 26 Fuel usage: combustion Criterion: A	0.76 m ³	EC (GJ/Unit): 0.0393 Z (GJ): -	Gas: CO ₂ EF (kg CO₂-e / GJ): 51.4 Method: Method 1	0
				Gas: CH ₄ EF (kg CO₂-e / GJ): 0.1 Method: Method 1	0
				Gas: N ₂ O EF (kg CO₂-e / GJ): 0.03	0

				Method: Method 1	
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: AA	4,297.36 kL	EC (GJ/Unit): 38.6 Z (GJ): 165,878	Gas: CO2 EF (kg CO2-e / GJ): 69.9 Method: Method 1	11,595
				Gas: CH4 EF (kg CO2-e / GJ): 0.1 Method: Method 1	17
				Gas: N2O EF (kg CO2-e / GJ): 0.2 Method: Method 1	33
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: Liquefied petroleum gas Fuel usage: combustion Criterion: A	0.353 kL	EC (GJ/Unit): 25.7 Z (GJ): 9	Gas: CO2 EF (kg CO2-e / GJ): 60.2 Method: Method 1	1
				Gas: CH4 EF (kg CO2-e / GJ): 0.2 Method: Method 1	0
				Gas: N2O EF (kg CO2-e / GJ): 0.2 Method: Method 1	0
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type:	Fuel / Energy commodity: Diesel oil Fuel usage: combustion Criterion: BBB	71.734 kL	EC (GJ/Unit): 38.6 Z (GJ): 2,769	Gas: CO2 EF (kg CO2-e / GJ): 69.9 Method:	194

Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes				<p>Method 1</p> <p>Gas: CH4 EF (kg CO2-e / GJ): 0.1 Method: Method 1</p> <p>Gas: N2O EF (kg CO2-e / GJ): 0.2 Method: Method 1</p>	<p>0</p> <p>1</p>
<p>Source category: Fuel combustion</p> <p>Source of emissions: Stationary and Transport energy purposes (excluding electricity generation)</p> <p>Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes</p>	<p>Fuel / Energy commodity: Diesel oil - Transport post-2004</p> <p>Fuel usage: combustion</p> <p>Criterion: AA</p>	293.098 kL	<p>EC (GJ/Unit): 38.6</p> <p>Z (GJ): 11,314</p>	<p>Gas: CO2 EF (kg CO2-e / GJ): 69.9 Method: Method 1</p> <p>Gas: CH4 EF (kg CO2-e / GJ): 0.01 Method: Method 2</p> <p>Gas: N2O EF (kg CO2-e / GJ): 0.6 Method: Method 2</p>	<p>791</p> <p>0</p> <p>7</p>
<p>Source category: Fuel combustion</p> <p>Source of emissions: Stationary and Transport energy purposes (excluding electricity generation)</p> <p>Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes</p>	<p>Fuel / Energy commodity: Diesel oil - Transport post-2004</p> <p>Fuel usage: combustion</p> <p>Criterion: BBB</p>	125.554 kL	<p>EC (GJ/Unit): 38.6</p> <p>Z (GJ): 4,846</p>	<p>Gas: CO2 EF (kg CO2-e / GJ): 69.9 Method: Method 1</p> <p>Gas: CH4 EF (kg CO2-e / GJ): 0.01 Method:</p>	<p>339</p> <p>0</p>

				Method 2	
				Gas: N2O EF (kg CO2-e / GJ): 0.6 Method: Method 2	3
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	30.785 kL	EC (GJ/Unit): 38.8 Z (GJ): 1,194	Gas: CO2 EF (kg CO2-e / GJ): 13.9 Method: Method 1	17
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	14.399 kL	EC (GJ/Unit): 38.8 Z (GJ): 559	Gas: CO2 EF (kg CO2-e / GJ): 3.5 Method: Method 1	2
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: BBB	11.036 kL	EC (GJ/Unit): 38.8 Z (GJ): 428	Gas: CO2 EF (kg CO2-e / GJ): 13.9 Method: Method 1	6
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: BBB	1.221 kL	EC (GJ/Unit): 38.8 Z (GJ): 47	Gas: CO2 EF (kg CO2-e / GJ): 3.5 Method: Method 1	0
Source Total			187,044		13,006
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	-	-	-	Gas: SF6 EF (kg CO2-e / GJ): - Method: Other Method	4
Source Total			-		4
Total			187,044		13,010

SCOPE 2 EMISSIONS

Activity Type	Amount	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	65,173,705	kWh	0.7	45,622
			Total	45,622

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	AA	-	293.098	kL	38.6	11,314
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Diesel oil - Transport post-2004	combustion	BBB	-	125.554	kL	38.6	4,846
Total								16,160

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 gaseous fuels - Stationary energy purposes	Gaseous fossil fuels other than those mentioned in items 17 to 26	combustion	A	-	0.76	m3	0.0393	0
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Diesel oil	combustion	AA	-	4,297.36	kL	38.6	165,878
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Liquefied petroleum gas	combustion	A	-	0.353	kL	25.7	9
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Diesel oil	combustion	BBB	-	71.734	kL	38.6	2,769
Emissions released from combustion of petroleum based oils or greases	Petroleum based oils (other than petroleum based oil used as fuel)	combustion	A	-	30.785	kL	38.8	1,194
Emissions released from combustion of petroleum based oils or greases	Petroleum based greases	combustion	A	-	14.399	kL	38.8	559
Emissions released from combustion of petroleum based oils or greases	Petroleum based oils (other than petroleum based oil used as fuel)	combustion	BBB	-	11.036	kL	38.8	428
Emissions released from combustion of petroleum based oils or greases	Petroleum based greases	combustion	BBB	-	1.221	kL	38.8	47
Total								170,884

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	-	-	-	-	65,173,705	kWh	0.0036	234,625
Energy consumed (not combusted)	Petroleum based oils (other than petroleum based oil used as fuel)	non-combustion	A	-	185.043	kL	38.8	7,180
Energy consumed (not combusted)	Petroleum based oils (other than petroleum based oil used as fuel)	non-combustion	BBB	-	2.779	kL	38.8	108
Total								241,913

Incidental Emissions and Energy

This Report contains greenhouse gas emissions and energy information from facilities that is incidental to the operation of the facility and reported in accordance with NGER Regulation 4.27.

The following tables summarise total greenhouse gas emissions and energy that are incidental to the operation of this facility during the reporting period.

GREENHOUSE GAS EMISSIONS (t CO2-e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
4	-	4

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
-	-	-

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
-	-	-	-	-	4	4

INCIDENTAL EMISSIONS					
Source of Emissions	Activity Type	Fuel Type Or Energy Commodity	Criterion	Gases	Incidental Emissions (t CO2-e)
Emissions of hydrofluorocarbons and sulphur hexafluoride gases	Emissions of sulphur hexafluoride gases from gas insulated switchgear and circuit breaker applications			SF6	4
Total					4

CONTRACTORS

Name of Contractor	Barmenco Limited
Contractor's Identifying Details	ABN 32 109 439 894 390 Stirling Cres HAZELMERE, Western Australia 6055

CONTRACTOR GREENHOUSE GAS EMISSIONS	
Total Greenhouse Gas Emissions (t CO2-e)	8,463

CONTRACTOR ENERGY PRODUCED AND ENERGY CONSUMED (GJ)	
Energy Consumed (GJ)	Energy Produced (GJ)
120,538	0

5: SA EXPLORATION - FACILITY

Name	SA Exploration
Facility Street Address	North of Yalata Yalata South Australia 5690 AUSTRALIA
Geographic Coordinates	Latitude 31.356S / Longitude 132.262E
Facility location	-
Activity location	South Australia
Location description	-
Activity description	-
ANZSIC Code	101 - Exploration
Operational Control	WESTERN AREAS LIMITED
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2018 - 30/06/2019
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 WESTERN AREAS LIMITED.

GREENHOUSE GAS EMISSIONS (t CO ₂ -e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
540	-	540

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
7,676	7,676	-

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO ₂ -e)						
Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
536	1	3	-	-	-	540

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 CO ₂ -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	33.144 kL	EC (GJ/Unit): 38.6 Z (GJ): 1,279	Gas: CO ₂ EF (kg CO₂-e / GJ): 69.9 Method: Method 1	89	
				Gas: CH ₄ EF (kg CO₂-e / GJ): 0.1 Method: Method 1	0	
				Gas: N ₂ O EF (kg CO₂-e / GJ): 0.2	0	

				Method: Method 1	
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 Fuel usage: combustion Criterion: A	165.72 kL	EC (GJ/Unit): 38.6 Z (GJ): 6,397	Gas: CO2 EF (kg CO2-e / GJ): 69.9 Method: Method 1	447
				Gas: CH4 EF (kg CO2-e / GJ): 0.1 Method: Method 1	1
				Gas: N2O EF (kg CO2-e / GJ): 0.5 Method: Method 1	3
		Source Total	7,676		540
		Total	7,676		540

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	combustion	A	-	165.72	kL	38.6	6,397
Total								6,397

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	-	33.144	kL	38.6	1,279
Total								1,279

Incidental Emissions and Energy

This Report contains greenhouse gas emissions and energy information from facilities that is incidental to the operation of the facility and reported in accordance with NGER Regulation 4.27.

The following tables summarise total greenhouse gas emissions and energy that are incidental to the operation of this facility during the reporting period.

GREENHOUSE GAS EMISSIONS (t CO₂-e)

Scope 1	Scope 2	Total of Scope 1 and Scope 2
-	-	-

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)

Energy Consumed Total	Energy Consumed Net	Energy Produced
7,676	7,676	-

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

Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
-	-	-	-	-	-	-

INCIDENTAL ENERGY CONSUMED BY MEANS OF COMBUSTION

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	-	33.144	kL	38.6	1,279
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Diesel oil - Transport	combustion	A	-	165.72	kL	38.6	6,397
Total								7,676

6: WESTERN AREAS PERTH OFFICE - FACILITY

Name	Western Areas Perth Office
Facility Street Address	Level 2 2 Kings Park Rd WEST PERTH Western Australia 6005 AUSTRALIA
Geographic Coordinates	Latitude 31.953S / Longitude 115.842E
Facility location	-
Activity location	Western Australia
Location description	-
Activity description	-
ANZSIC Code	109 - Other mining support services
Operational Control	WESTERN AREAS LIMITED
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2018 - 30/06/2019
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 WESTERN AREAS LIMITED.

GREENHOUSE GAS EMISSIONS (t CO ₂ -e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
-	61	61

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
316	316	-

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO ₂ -e)						
Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
-	-	-	-	-	-	-

SCOPE 2 EMISSIONS				
Activity Type	Amount	Units	Emission Factor (kg CO ₂ -e / unit)	Scope 2 Emissions (t CO ₂ -e)
Purchase and loss of electricity from main electricity grid in a State or Territory	87,728	kWh	0.7	61
Total				61

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	-	-	-	-	87,728	kWh	0.0036	316
Total								316

CORPORATE GROUP THRESHOLD MET

The corporate group of WESTERN AREAS LIMITED 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).

REPORTING ABOUT INCIDENTAL EMISSIONS AND ENERGY

This Report contains greenhouse gas emissions and energy information from facilities that is incidental to the operation of the facility and reported in accordance with NGER Regulation 4.27.

PRIVACY STATEMENT

PROTECTION OF INFORMATION

The Clean Energy Regulator is bound by the secrecy provisions of Part 3 of the *Clean Energy Regulator Act 2011* (CER Act) in regard to information it collects in relation to this report and also by the *Privacy Act 1988* in regard to personal information it collects.

PRIVACY NOTICE

'Personal information' is defined in the Privacy Act 1988 to mean information or an opinion about an identified individual, or an individual who is reasonably identifiable:

- (a) whether the information or opinion is true or not; and
- (b) whether the information or opinion is recorded in a material form or not.

The collection of personal information relating to this report is authorised by the *National Greenhouse and Energy Reporting Act 2007* (NGER Act) and the National Greenhouse and Energy Reporting Regulations 2008.

Personal information collected in relation to this report will be used for the purposes of assessing the report content, auditing compliance, enforcement of relevant laws and regulations, the performance of our statutory functions and for related purposes. We will also use the personal information which you provide for our administrative purposes, for example, to pre-populate other Clean Energy Regulator forms which you wish to fill out online in the future, and for improving our service delivery to you. We cannot process the application if we do not collect relevant personal information.

The Clean Energy Regulator's Privacy Policy contains information about the agency's procedures for handling personal information including how a person can access their personal information held by the agency, and how to seek correction of such information. The Privacy Policy also contains information about how to complain about a breach of the Australian Privacy Principles. The Clean Energy Regulator's Privacy Policy can be found at www.cleanenergyregulator.gov.au.

DISCLOSURE OF INFORMATION

The Clean Energy Regulator is only able to disclose information relating to this report (including personal information) in accordance with the CER Act, the NGER Act, the Privacy Act 1988 or as otherwise required by law.

The circumstances in which such information may be disclosed include:

- Disclosure to the Secretary or authorised officer of a Department for the purpose of administering a program or collecting statistics relating to greenhouse gas emissions, energy consumption or energy production;
- Disclosure to certain agencies, bodies or persons where the Regulator is satisfied that disclosure will enable or assist those agencies, bodies or persons to perform or exercise their functions or powers, including the Australian Securities and Investments Commission, the Australian Competition and Consumer Commission and the Commissioner of Taxation;
- Disclosure for the purposes of law enforcement;
- Disclosure to States and Territories in accordance with the NGER Act; and
- Disclosure for the purposes of a climate change law or for the purposes of the performance of our functions under a climate change law.

DECLARATION

The Executive Officer (or equivalent), as described in the National Greenhouse and Energy Reporting Act 2007 (NGER Act), should read the following declaration below before electronically submitting the report

It is the responsibility of the reporting entity to ensure that the information provided in the Report is prepared in accordance with the requirements set out in the NGER Act and the *National Greenhouse and Energy Reporting Regulations 2008* (the NGER Regulations) and that the data it contains is based on methods prescribed in the *National Greenhouse and Energy Reporting (Measurement) Determination 2008* (the Measurement Determination).

Under the NGER Act and the NGER Regulations, the reporting entity remains responsible for the truth and accuracy of the contents of the report despite the assistance, if any, of a third party in its preparation.

Section 19 of the NGER Act includes a civil penalty provision, a breach of which may attract a pecuniary penalty of up to 2,000 penalty units. The *Crimes Act 1914* provides that one penalty unit is \$210.

In accordance with section 22 of the NGER Act, a reporting entity is required to keep records of the activities of the members of its group that, inter alia, allow it to report accurately under the NGER Act. Records must be retained for a period of 5 years from the end of the year in which the activities took place. Section 22 includes a civil penalty provision, a breach of which may attract a pecuniary penalty of up to 1,000 penalty units.

By electronically submitting, the signatory declares that:

- they have read and understood the penalties that apply for breaching the *National Greenhouse and Energy Reporting Act 2007*;
- the information provided in this report (including any attachments) is true and correct, and that they understand that the provision of false or misleading information is a serious offence under the *Criminal Code 1995* and may have consequences under the *National Greenhouse and Energy Reporting Act 2007*;
- the information provided in this Report has been prepared and supplied in accordance with the requirements set out in the *National Greenhouse and Energy Reporting Act 2007*, the *National Greenhouse and Energy Reporting Regulations 2008* and the *National Greenhouse and Energy Reporting (Measurement) Determination 2008*;
- they are duly authorised to act, including submitting this report, on behalf of the reporting entity;
- the Clean Energy Regulator may compel or conduct an audit of the information contained in this report or in relation to compliance with the *National Greenhouse and Energy Reporting Act 2007* or the *National Greenhouse and Energy Reporting Regulations 2008*;
- the Clean Energy Regulator may request further clarification or documentation to verify the information supplied in this Report; and
- the entity providing the report and each group member (if any) listed in the report is a body corporate.