

earth resources

# Schedule 19: Annual Activity and Expenditure Return

*Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2013 - Regulation 35*

## Section 1: Mining licence number and operation name: (One licence only per form)

Mining Licence Number	MIN5004
Operation Name	Hazelwood Mine
Licensee	Hazelwood Power Corporation
Operator (if not licensee)	
Reporting Period	2014/15

Declaration: To the best of my knowledge and belief the particulars entered on this return and in the attachments are correct and no figures, information or diagrams required under Regulation 35 of the *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2013* have been omitted.

Signature:	<i>P. T. Brimblecombe</i>
Date:	<i>20/8/2015</i>
Name: (Block letters)	Peter Brimblecombe
Job Title:	A/Technical Compliance Manager, Mine
Telephone	(03) 51355945

### REPORT

## Section 2: Expenditure (Schedule 19, Section 4 to 9)

<b>Wages and Salaries</b>	27,083,508
<b>Land Access Compensation</b> - Access to land (Private) - Native Title Compensation	-
<b>Expenditure on equipment, plant or machinery</b>	37,455,769
<b>Overheads*</b> (should not exceed 20% of the total expenditure)	12,292,603
<b>Expenditure on rehabilitation</b>	570,516
<b>Expenditure on exploration</b> (as distinct from mining) if any; under the following headings:	Nil
Office Studies	Nil
Airborne exploration surveys	Nil
Remote sensing imagery	Nil
Ground exploration - mapping, surveying etc...	Nil
Expenditure on mining work undertaken.	Nil

Drilling	Nil
Surface Development - costeaning or bulk sampling	Nil
Total expenditure for licence	77,402,396

\*Allowable overhead costs include rent, office supplies, photocopying, tenement management, Aboriginal Heritage Surveys, equipment maintenance, accommodation, construction materials, field materials and administrative costs. An acceptable level of overheads should not be more than 20% of the total claim. Accommodation claims should include attaching details eg: period of accommodation, number of people, location of accommodation etc.

### Section 3: Production (Schedule 19, Section 10b)

Specific ore or mineral produced for Period	Total quantity of ore or mineral produced (tonnes, m3, ounces, grams)	Total value of ore or minerals produced (\$000)	Metallic content of production (%)
Brown Coal	16,143,564	-	NA

Important note: if your operation includes more than one title you may choose to complete the following pages of this report using combined data for all titles at your site. If doing so please indicate the title numbers below.

Title Numbers:

### Section 4: Mining Works (Schedule 19, 10a,c,d)

ARE YOUR MINING WORKS IN ACCORDANCE WITH YOUR APPROVED WORK PLAN?

Yes  No

#### 4.1 Underground Mining

ARE THERE ANY UNDERGROUND MINE WORKINGS AT THE SITE?

YES Complete this section

NO Go to section 4.2

##### Details of underground workings

1. Attach a detailed current plan of any underground mine to this report. Plans should clearly indicate dimensions, structural features, access points, ventilation, services and security measures.
2. Provide a description of any shaft or underground development during the reporting period, including the depth or distance developed. *(Attach additional pages if necessary)*

**4.2 Surface mine facilities and works**

1. Describe any development or extensions to surface mine facilities and works; (Attach additional pages if necessary)
2. If there have been significant changes a scale plan of the site should be attached to clearly indicate developments or extensions to the site over the reporting period. (eg Infrastructure, dams, plant, etc)

As per the Approved Work Plan, development of the mine has continued to the west. The attached drawing (LV66/20-1/034) shows the operating face positions for the mine at the start of July 2014 and the end of June 2015.

## Section 5: Land Disturbance and Land Rehabilitation (Schedule 19, sections 11,a,b,c,d)

**5.1 Details of land disturbance and rehabilitation**

<b>A</b>	the total current area of land disturbed	2543 ha
The proportion of this area that has been disturbed in relation to each of the following:		
<b>i</b>	Pits	1260 ha
<b>ii</b>	Overburden and waste rock dumps	838 ha
<b>iii</b>	Tailings storage facilities	49.4 ha
<b>iv</b>	Infrastructure	Nil ha
<b>B</b>	Area of land disturbed during the last reporting period	98 ha
<b>C</b>	Area rehabilitated over the last reporting period	10.1 ha
The proportion of this area that has been disturbed in relation to each of the following:		
<b>i</b>	Pits	10.1 ha
<b>ii</b>	Overburden and waste rock dumps	0 ha
<b>iii</b>	Tailings storage facilities	Nil ha
<b>iv</b>	Infrastructure	Nil ha
<b>D</b>	Proportion of the area rehabilitated over the reporting period (C above) that was revegetated with local native species:	0 %

**5.2 Estimate of rehabilitation liability**

What is the current bond for the site

\$ 15,000,000

What is the current estimated rehabilitation liability for the site

\$

Describe any methods and assumptions used in calculation

The Mining Licence operates by references to two broad concepts of rehabilitation: progressive rehabilitation (intended to be undertaken during the life of the Mine) and final rehabilitation (intended to be achieved at the end of the life of the Mine once coal production ceases). The combined cost of progressive and final rehabilitation is expected to be AUS\$73.4m.

## Section 6: Dams and Waste Streams (Schedule 19, section 12a,b)

ARE THERE ANY TAILINGS DAMS WITHIN THE LICENSED AREA?

YES Complete this section

NO Go to section 7

### 6.1 Tailings Dams

Status and area of tailings dams

	Operational	Care and maintenance	Partially rehabilitated	Rehabilitated	Totals
Number in each status category	2				2
Total area in each category (ha)	49.4				49.4

**6.2 Volume and composition of tailings produced Section 12a**

Please complete and attach a Tailings Storage Data Sheet (separate) for each tailings storage facility at the site.

**6.3 Volume and composition of tailings produced Section 12b**

Where possible, quantify other significant waste streams generated on-site during the reporting period: (Attach additional pages if necessary).

Waste Stream	Composition	Quantity	Management measures
Hazelwood Ash Pond No	Ashing Waste, EPA landf	26,015	EPA licenced landfill usin
Hazelwood Ash Pond No	Ashing Waste, EPA landf	160,440	EPA licenced landfill usin

**Section 7: Environmental Management (Schedule 19, Section 12)**

**7.1 Environment Monitoring**

DO YOUR APPROVED WORK PLAN AND/OR THE ASSOCIATED WORK PLAN CONDITIONS REQUIRE YOU TO CARRY OUT ENVIRONMENTAL MONITORING?

YES Complete this section

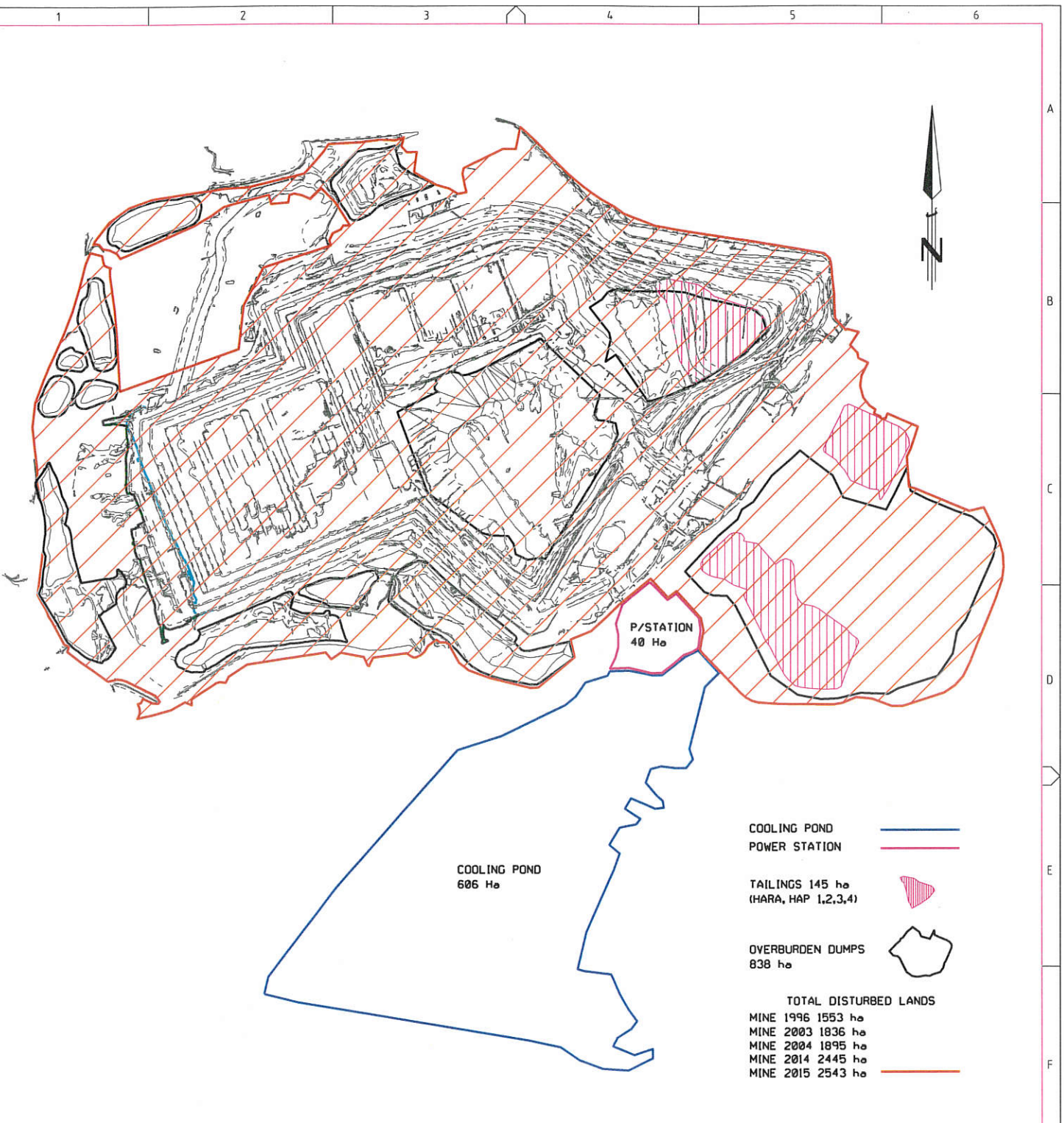
NO

Provide a statements outlining whether the licensee has complied with environmental monitoring requirements during the reporting period as outlined under the work plan and conditions, including details of any non-compliances that have not otherwise been reported in accordance with regulation 33 (reportable events).

The MIN5004 licence has the following requirements relating to environmental elements and outputs for the reporting period:

Environmental Review Committee conducted quarterly  
 Dust Monitoring - Target: 4g/m2 Actual Achieved: 1.7g/m2  
 Dust Complaints - Nil  
 Noise Complaints - Nil

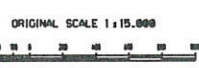




- COOLING POND ———
- POWER STATION ———
- TAILINGS 145 ha (HARA, HAP 1,2,3,4)
- OVERBURDEN DUMPS 838 ha
- TOTAL DISTURBED LANDS
- MINE 1996 1553 ha
- MINE 2003 1836 ha
- MINE 2004 1895 ha
- MINE 2014 2445 ha
- MINE 2015 2543 ha

- MINE FACE @ 1/7/2014 ———
- MINE FACE @ 30/6/2015 ———
- AREA OF LAND DISTURBED DURING LAST REPORTING PERIOD 98 ha

Notes: Mine faces @ August 2015



**GDF SUEZ**

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GDF SUEZ HAZELWOOD

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DRG No. **LV66/20-1/034** REV **C**

**HAZELWOOD MINE  
DISTURBED LANDS  
AT AUGUST 2015**

REVISION	DATE	REV	WO/FILE	DESCRIPTION	CHKD	APPV	APPROVED (GDF SUEZ)
	8/2015	C		GENERAL REVISION			
	8/2014	B		2014 AREA, ASH PONDS, OB DUMPS & NEW SHEET			

CONTRACTOR FILE NO.

COLOUR AUTOCAD A3V

## TAILINGS STORAGE DATA SHEET

## Project Data

Licence/Work Authority:	EPA	Date	06/08/2015
Licensee	Hazelwood Power Corporation		
Operation/Site name	MIN5004		
TSF name	Hazelwood Ash Pond No 1 (HAP 1)		
Location	Hazelwood Mine		
Municipality	Latrobe City		
TSF centre coordinates (GDA94)	5764295N	North	447508E East
Name data provider	Hazelwood Mine		
Telephone	03 5135 5743		

## TSF Data

## TSF Status

Proposed  Operational  Care and Maintenance  Part rehabilitated  Rehabilitated

Type of TSF <sup>1</sup>	EPA	Number of Cells <sup>2</sup>	1
Catchment area <sup>3</sup>	12 Ha	Nearest watercourse	Bennets Creek
Date deposition started (mm/yy)	1960's	Date deposition completed	N/A
Tailings discharge method <sup>4</sup>	Slurry	Water recovery method <sup>5</sup>	Outside Wall Pump
Bottom of facility sealed or lined? Y/N	Y	Type of seal or liner <sup>6</sup>	Clay
Depth to original groundwater level	m	Original groundwater TDS	mg/l
Ore process <sup>7</sup>	Gravity Separation	Material storage rate <sup>8</sup>	26,015 m <sup>3</sup>
IMPOUNDMENT VOLUME	Present 382,345	m <sup>3</sup> Expected maximum	401,200 m <sup>3</sup>
MASS OF SOLIDS STORED	Present	tonnes Expected maximum	tonnes



## TAILINGS STORAGE DATA SHEET

Foundation soils	Wall lifting by
Foundaton rocks	Upstream <input type="radio"/> Downstream <input type="radio"/> Centre line <input type="radio"/>
MAX WALL HEIGHT (AGL) <sup>9</sup>	Present 6 m Expected m
CREST LENGTH	Present 1,380 m Expected max m
IMPOUNDMENT AREA	Present 12Ha?? m Expected max m

**Properties of Tailings**

TDS <sup>10</sup> 7500 mg/l	pH 12.3	Solids content%
Deposited density t/m <sup>3</sup>	WAD CN <sup>11</sup> mg/l	Total CN mg/l

Chemical Constituents of tailings<sup>12</sup>

Constituent	Solid/Liquid	Conc.(units) <sup>13</sup>	Constituent	Solid/Liquid	Conc.(units) <sup>11</sup>
Sulphate	liquid	3925 mg/l	Al2O3	solid	9.4% db
Sodium	liquid	1850 mg/l	Fe2O3	solid	8.6% db
Chloride	liquid	1043 mg/l	MgO	solid	7.3% db
Calcium	liquid	885 mg/l	SO3	solid	1.6% db
Potassium	liquid	178 mg/l	TiO2	solid	0.77% db
SiO2	solid	36.2% db	K2O	solid	0.48% db
CaO	solid	21.9% db	Na2O	solid	0.4% db

## TAILINGS STORAGE DATA SHEET

## Project Data

Licence/Work Authority:	EPA	Date	06/08/2015
Licensee	Hazelwood Power Corporation		
Operation/Site name	MIN5004		
TSF name	Hazelwood Ash Pond No 4 (HAP4)		
Location	Hazelwood Mine		
Municipality	Latrobe City		
TSF centre coordinates (GDA94)	5785100N	North	448491E East
Name data provider	Hazelwood Mine		
Telephone	03 5135 5743		

## TSF Data

TSF Status

 Proposed  Operational  Care and Maintenance  Part rehabilitated  Rehabilitated 

Type of TSF <sup>1</sup>	EPA Landfill	Number of Cells <sup>2</sup>	1
Catchment area <sup>3</sup>	37.4 Ha	Nearest watercourse	Bennetts Creek
Date deposition started (mm/yy)	1980	Date deposition completed	N/A
Tailings discharge method <sup>4</sup>	Slurry	Water recovery method <sup>5</sup>	Floating Pump
Bottom of facility sealed or lined? Y/N	Yes	Type of seal or liner <sup>6</sup>	Clay
Depth to original groundwater level	m	Original groundwater TDS	mg/l
Ore process <sup>7</sup>	Gravity Separation	Material storage rate <sup>8</sup>	160,440m <sup>3</sup>
IMPOUNDMENT VOLUME	Present 4,100,747	m <sup>3</sup>	Expected maximum 5,930,361 m <sup>3</sup>
MASS OF SOLIDS STORED	Present	tonnes	Expected maximum tonnes

## TAILINGS STORAGE DATA SHEET

Foundation soils	Wall lifting by
Foundaton rocks	Upstream <input type="radio"/> Downstream <input type="radio"/> Centre line <input type="radio"/>
MAX WALL HEIGHT (AGL) <sup>9</sup>	Present 26 m Expected m
CREST LENGTH	Present 2,267 m Expected max m
IMPOUNDMENT AREA	Present 32Ha??? m Expected max m

**Properties of Tailings**

TDS <sup>10</sup> 6350 mg/l	pH 11.2	Solids content%
Deposited density t/m <sup>3</sup>	WAD CN <sup>11</sup> mg/l	Total CN mg/l

Chemical Constituents of tailings<sup>12</sup>

Constituent	Solid/Liquid	Conc.(units) <sup>13</sup>	Constituent	Solid/Liquid	Conc.(units) <sup>11</sup>
SiO <sub>2</sub>	solid	36.2% db	K <sub>2</sub> O	solid	0.46% db
CaO	solid	21.9% db	Na <sub>2</sub> O	solid	0.4% db
Al <sub>2</sub> O <sub>3</sub>	solid	9.4% db	Sulphate	liquid	3725 mg/l
Fe <sub>2</sub> O <sub>3</sub>	solid	8.6% db	Sodium	liquid	1875 mg/l
MgO	solid	7.3% db	Chloride	liquid	795 mg/l
SO <sub>3</sub>	solid	1.6% db	Calcium	liquid	185 mg/l
TiO <sub>2</sub>	solid	0.77% db	Potassium	liquid	190 mg/l