



#### **INTRODUCTION**

Broken Hill Operations Pty Ltd (BHOP) [a wholly owned subsidiary of CBH Resources Limited (CBH)] owns and operates the Rasp Mine (the Mine), which is located centrally within the City of Broken Hill on Consolidated Mine Lease 7 (CML7).

Mining has been undertaken within CML7 since 1885. The existing operations at the Rasp Mine include underground mining operations, a processing plant producing zinc and lead concentrates and a rail siding for concentrate dispatch. These operations are undertaken in accordance with Project Approval 07\_0018 granted 31 January 2011, under Part3A of the Environmental Planning and Assessment Act 1979 (EP&A Act).

As the holder of an Environmental Protection Licence, 12559, BHOP is required, under Section 66(6) of the NSW *Protection of the Environment Operations Act 1997*, to publish pollution monitoring data. In addition BHOP is required to publish data in accordance with its Project Approval 07\_0018 Schedule 4 Condition 9. These documents can be found on the Rasp Mine web site.

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# 1 Air Quality

The following criteria as listed in the Project Approval (MOD4 6 September 2017) apply to air quality monitoring:

#### **Long Term Criteria for Particulate Matter**

Pollutant	Averaging Period	Criterion
Total solid particles (TSP)	Annual	90 μg/m³
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	25 μg/m³

#### **Short Term Criterion for Particulate Matter**

Pollutant	Averaging Period	Criterion
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 μg/m <sup>3</sup>

#### **Long Term Criteria for Deposited Dust**

Pollutant	Averaging Period	Averaging Period Maximum Project Contribution	
Deposited dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month

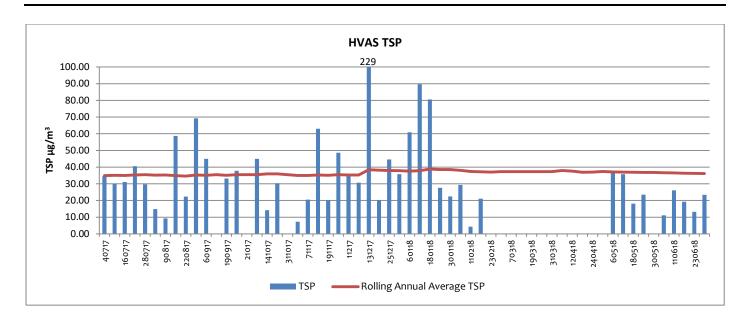
#### 1.1 High Volume Air Samplers

There are three high volume air samplers used to measure ambient air quality at the Rasp Mine - HVAS (EPL10) and HVAS1 (EPL11) are located at the Silver Tank, central and to the south of the mine lease, and HVAS2 (EPL12) is located adjacent to and north of Blackwood Pit. A map indicating these locations can be found on the Rasp Mine web site. HVAS samples for total suspended particulates (TSP) and lead dust, and HVAS1 and HVAS2 sample for particulate matter less than 10 microns (PM $_{10}$ ) and lead dust.

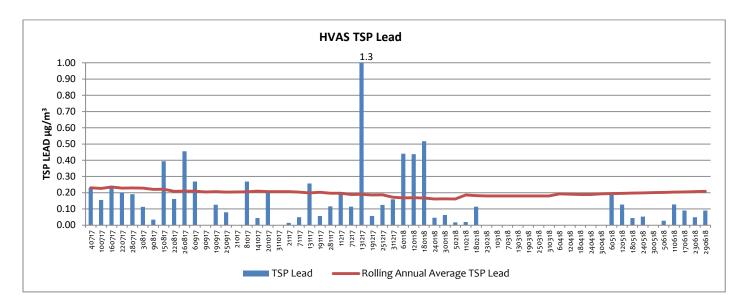
#### HVAS (EPL10) - Silver Tank (On Site) Results for June

DATE	TSP (µg/m³)	Lead (μg/m³)
05-06-18	11.10	0.03
11-06-18	26.10	0.13
17-06-18	19.30	0.09
23-06-18	13.20	0.05
29-06-18	23.40	0.09





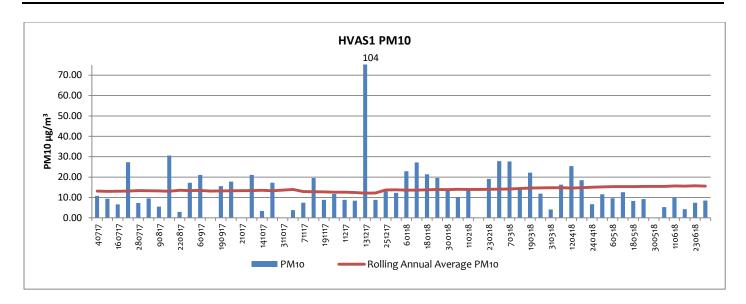
HVAS (EPL10) is located on the Rasp Mine and while limit criteria do not apply at this point, they do apply at the closest residential location. Overall the trend for PM10 at this location remains consistent with the previous 12 months. The recorded annual average TSP inclusive of June is  $40.21 \, \mu g/m^3$ .



HVAS1 (EPL11) - Silver Tank (On Site) Results for June

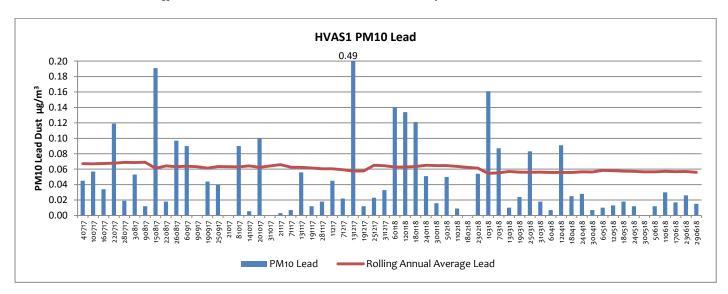
DATE	PM10 (μg/m³)	PM10 Lead (μg/m³)
05-06-18	5.30	0.01
11-06-18	9.90	0.03
17-06-18	4.30	0.02
23-06-18	7.40	0.03
29-06-18	8.50	0.02





HVAS (EPL11) is located on the Rasp Mine and while limit criteria do not apply at this point, they do apply at the closest residential location. The recorded annual average for  $PM_{10}$  inclusive of June is 15.1  $\mu g/m^3$  which is below the  $PM_{10}$  annual average criterion of 25  $\mu g/m^3$  required at the nearest residential location.

Overall the trend for PM<sub>10</sub> at this location remains consistent with the previous 12 months.

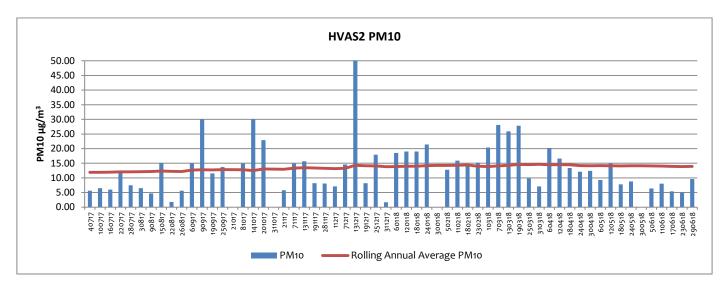


There is no guideline for assessing  $PM_{10}$  lead dust; the trend for lead dust at this location remains consistent with the previous 12 months.

HVAS 2 (EPL12) - Blackwood Pit (On Site) Results for June

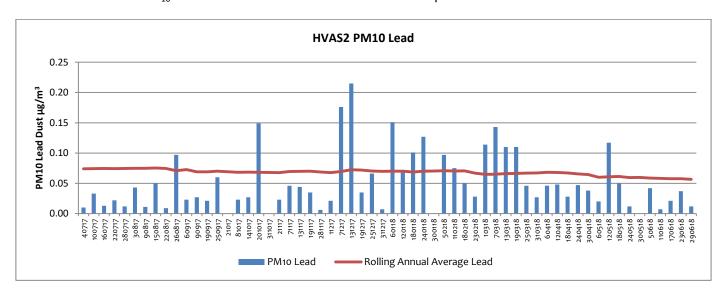
DATE	PM10 (μg/m³)	Lead (μg/m³)
05-06-18	6.40	0.042
11-06-18	8.00	0.007
17-06-18	5.40	0.021
23-06-18	5.00	0.037
29-06-18	9.60	0.012





HVAS (EPL12) is located on the Rasp Mine and while limit criteria do not apply at this point, they do apply at the closest residential location. The recorded annual average  $PM_{10}$  to June is 13.31  $\mu g/m^3$  which is below the  $PM_{10}$  annual average criterion 25  $\mu g/m^3$  required at the nearest residential location.

Overall the trend for PM<sub>10</sub> at this location remains consistent with the previous 12 months.



There is no guideline for assessing PM10 lead dust; the trend for lead dust at this location remains consistent with the previous 12 months.



#### 1.2 Tapered Element Oscillating Microbalance Sampling (TEOM)

There are two Tapered Element Oscillating Microbalance (TEOM) sampling units used to measure ambient air quality at the Rasp Mine – TEOM1 (EPL13) is located off-site within the perimeter fence of Essential Water south of the mine lease, and TEOM2 (EPL14) is located on-site adjacent to Blackwood Pit to the north of the mine lease. A map indicating these locations can be found on the Rasp Mine web site. TEOM1 and TEOM2 operate continuously and sample for particulate matter less than 10 microns (PM<sub>10</sub>) in size.

TEOM1 (EPL13) (Off Site) and TEOM2 (EPL14) (On Site) Results for June

Date	TEOM 1 (μg/m³)	Compliant with 50µg/m³ 24hr average?	TEOM 2 (μg/m³)	Compliant with 50µg/m <sup>3</sup> 24hr average?
01-06-18	NS	N	11.92	Y
02-06-18	10.08	Υ	10.93	Υ
03-06-18	11.29	Υ	12.27	Υ
04-06-18	10.66	Υ	12.28	Υ
05-06-18	8.93	Υ	10.85	Υ
06-06-18	18.92	Υ	11.33	Υ
07-06-18	19.86	Υ	13.82	Υ
08-06-18	16.25	Υ	13.40	Υ
09-06-18	6.37	Υ	5.37	Υ
10-06-18	3.98	Υ	3.65	Υ
11-06-18	8.36	Υ	7.08	Υ
12-06-18	20.97	Υ	20.55	Υ
13-06-18	12.46	Υ	13.45	Υ
14-06-18	10.62	Υ	11.50	Υ
15-06-18	13.64	Υ	13.18	Υ
16-06-18	13.59	Υ	12.39	Υ
17-06-18	8.50	Υ	8.51	Υ
18-06-18	7.42	Υ	11.86	Υ
19-06-18	10.53	Υ	9.55	Υ
20-06-18	15.86	Υ	11.28	Υ
21-06-18	8.15	Υ	7.58	Υ
22-06-18	8.16	Υ	7.92	Υ
23-06-18	9.14	Υ	8.96	Υ
24-06-18	7.52	Υ	7.36	Υ
25-06-18	8.46	Υ	10.27	Υ
26-06-18	12.49	Υ	14.78	Υ
27-06-18	9.55	Υ	12.24	Υ
28-06-18	11.44	Υ	13.88	Υ
29-06-18	10.94	Υ	11.19	Υ
30-06-18	13.45	Υ	13.81	Υ

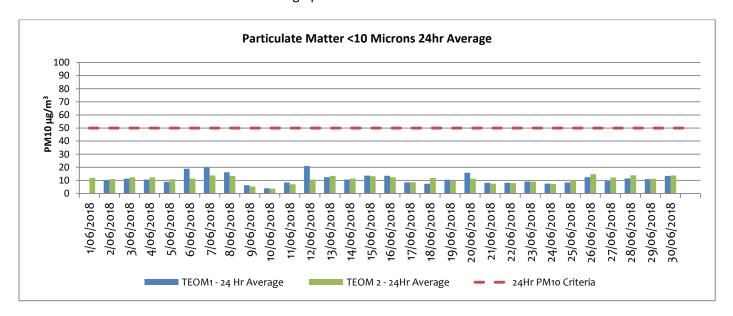
NS= Firmware upgrade install

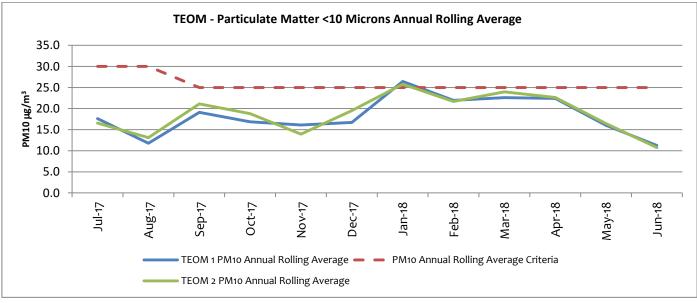


The TEOM1 monitoring unit is located off-site from the Rasp Mine and the criteria as listed in the Project Approval 07\_0018 apply at this point. There are two criteria listed for  $PM_{10}$ , a 24 hour average (50  $\mu g/m^3$ ) and an annual average (25  $\mu g/m^3$ ). The highest 24-hour average recorded at TEOM1 was 20.97  $\mu g/m^3$  on 12 June. The annual average  $PM_{10}$  inclusive of June was 11.29  $\mu g/m^3$  and is below the listed criteria of 25  $\mu g/m^3$ . The 24-hour average for TEOM1 for 1 June could not be calculated as the unit was reset late the previous day following a firmware upgrade.

TEOM2 is located on the northwest side of Blackwood Pit TSF. The highest 24-hour average recorded at TEOM2 was 20.55  $\mu g/m^3$  on 12 June. The TEOM2 PM10 Annual Rolling Average was 10.8  $\mu g/m^3$  which is below the PM<sub>10</sub> annual average criterion of 25  $\mu g/m^3$  required at the nearest residential location.

The highest 24-hour averages recorded at both TEOM units in June were on 12 June. The strong winds measured on the day were predominantly from the west which indicates the dust levels recorded in both units were the result of environmental dust not associated with mining operations.





**Note 1:** Criteria change to 25μg/m<sup>3</sup> in September as per PA MOD4.



The Rasp Mine is in compliance with this criterion. Overall the trend for  $PM_{10}$  at this location remains consistent with the previous 12 months. Results have been affected by recent dry conditions as there has been only 2.04mm recorded at the Rasp Mine weather station in the six months to the end of June.

#### 1.3 Dust Deposition Sampling

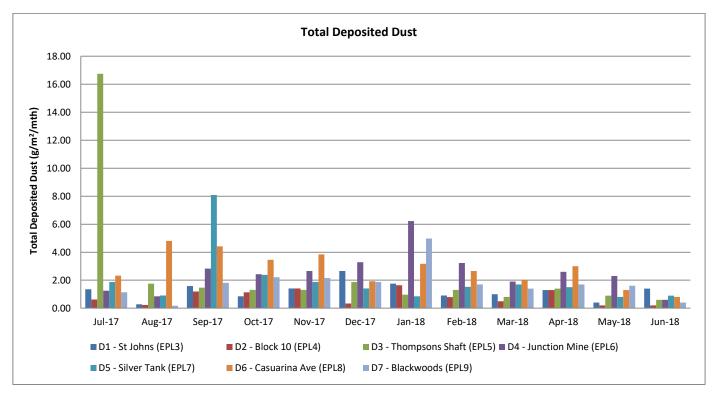
There are seven dust deposition gauges to measure ambient air quality at the Rasp Mine – D1 to D7. D1 and D6 are located off-site, D1 near the St Johns training facility north of the Rasp Mine and D6 in Casuarina Avenue south of the Rasp Mine. D2 to D5 and D7 are located on the mine lease in various locations. A map indicating these locations can be found on the Rasp Mine web site. Dust samples are collected monthly and analysed for total deposited dust and deposited lead dust.

#### Dust Deposition Gauges (D1 (EPL3) to D7 (EPL9)) - Results for June

Total Deposited Dust (g/m²/Month)							
Date	D1 (off site)	D2 (on site)	D3 (on site)	D4 (on site)	D5 (on site)	D6 (off site)	D7 (on site)
June 2018	1.4	0.2	0.6	0.6	0.9	0.8	0.4
Background (2010)	4.0	3.1	4.3	5.7	-1	5.8	-1
Compliant?	Υ	N/A	N/A	N/A	N/A	Υ	N/A

Note: "1" = background not available

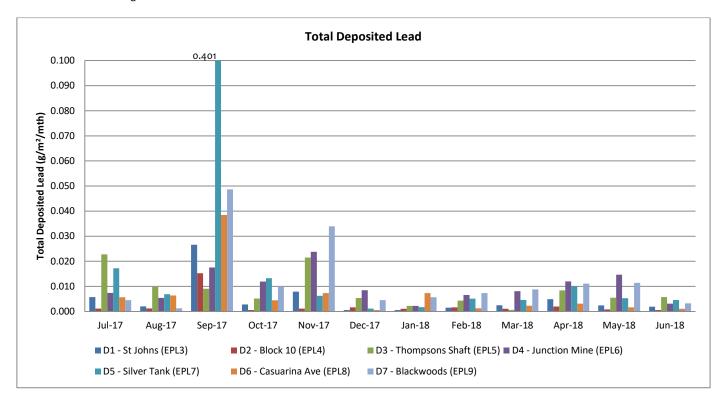
N/A = not applicable as dust deposition unit is located on site



The Rasp Mine is in compliance with criteria.

Total Deposited Lead (g/n	n <sup>2/</sup> Month)						
Date	D1 (off Site)	D2 (on site)	D3 (on site)	D4 (on site)	D5 (on site)	D6 (off Site)	D7 (on site)
June 2018	0.002	0.001	0.006	0.003	0.005	0.001	0.003
Background (2010)	0.0034	0.005	0.005	0.006	-1	0.004	-1

Note: "1" = background not available



There are no guidelines for deposited lead dust. The results are consistent with previous months.

#### 1.4 Ventilation Outlets and Bag House Monitoring

There are three locations to measure pollutants from exhausts or stacks, these include the Primary Ventilation Shaft and Shaft 6, both measuring pollutants from underground firings, and the Baghouse Stack at the crusher measuring dust. All are located on site; the Primary Ventilation Shaft is located centrally and to the north of the mine lease and Shaft 6 is located centrally within the lease. The Primary Crusher Baghouse Stack is located within the area of the processing plant to the east of the lease. A map indicating these locations can be found on the Rasp Mine web site. Samples are collected quarterly and analysed for a number parameters listed in below. Reference to the item required in the Rasp Mine Environment Protection Licence (EPL) is provided below.

Quarterly sampling is undertaken in March, June, September and December.

The following criteria apply:

Primary Ventilation Shaft (EPL1) and Shaft 6 (EPL56)

	Unit	Criteria
Nitrogen Oxides	mg/m <sup>3</sup>	350
Volatile Organic Compounds	mg/m <sup>3</sup>	40



#### Primary Ventilation Shaft (EPL1), Shaft 6 (EPL56) and Crusher Baghouse (EPL2)

	Unit	Criteria
Total Suspended particles	mg/m <sup>3</sup>	20
Type 1 and Type 2 <sup>1</sup>	mg/m³	1

**Note 1:** "Type 1 substance" means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements.

#### Primary Vent Shaft (EPL1), Crusher Baghouse (EPL2) and Vent Shaft 6 (EPL56) Results for June

	Unit	Primary Vent Shaft (EPL1)	Crusher Baghouse (EPL2)	Vent Shaft 6 (EPL 56)
Nitrogen Oxides	mg/m³	4.19	NA	<2.05
Volatile Organic Compounds	mg/m³	<0.471	NA	<0.473
Total Suspended particles	mg/m³	1.99	4.71	5.37
Type 1 and Type 2	mg/m³	0.0231	0.161	0.0388

The Rasp Mine is in compliance with all listed criteria.

#### 2 Noise

#### 2.1 Blasting (Vibration and Overpressure)

There are 6 vibration monitors at various locations to measure for vibration and overpressure from blast firings. These include V1 to V5 which are located off-site and V6 which is located on-site near Shaft 4. A map indicating these locations can be found on the Rasp Mine web site. In addition there are 2 roving monitors, which may be used to monitor vibration and overpressure at particular locations as required. Monitors operate continuously and are automatically triggered when a blast occurs. The following conditions apply as listed in the PA 07\_0018 and EPL 12559:-

#### Blasting Criteria (Western Mineralisation and Main Lodes excluding Block 7)

Location	Airblast Overpressure (dB(Lin Peak))	Ground Vibration (mm/s)	Allowable Exceedance (for production and development blasts)	
Residence on privately owned land (7am-7pm)	115	5	5% of the total number of blasts over a 12-month period <sup>1</sup>	
(7am-7pm)	120	10	0%	
(7pm-10pm)	105	-	-	
(10pm-7am)	<b>(10pm-7am)</b> 95		-	
Public Infrastructure	-	100	0%	

**Note 1**: Does not apply until completion of Pollution Reduction Program on the EPL at the end of 2018. Applies to EPL criteria in the period for the Annual Return 3 Nov to 2 Nov the following year and to DPE criteria in the reporting period 1 Jul to 30 Jun each year.

<sup>&</sup>quot;Type 2 substance" means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements.



#### Blasting Criteria (Block 7)

Location	Airblast Overpressure (dB(Lin Peak)	Ground Vibration (mm/s)	Allowable Exceedance (for production and development blasts)
Residence on privately owned land (7am-7pm)	115	3 (interim)	5% of the total number of blasts over a 12-month period <sup>1</sup>
(7am-7pm)	120	10	0%
(7pm-10pm)	105	-	-
(10pm-7am)	95	-	-
Broken Hill Bowling Club, Italio (Bocce) Club, Heritage Items within CML7	-	50	0%
Perilya Southern Operations	-	100	0%
Public Infrastructure	-	100	0%

**Note 1**: Applies to EPL criteria in the period for the Annual Return 3 Nov to 2 Nov the following year and to DPE criteria in the reporting period 1 Jul to 30 Jun each year.

#### In addition the following conditions also apply:-

- Production blasts may occur between 6.45 am and 7.15 pm on any day
- 1 production blast per day, with 6 per week averaged over a calendar year
- 6 development blasts per day, with 42 per week averaged over a calendar year

#### **Blasting Data Summary Results for June**

#### **Total Blasts:**

- 0 production blasts occurred before 6.45 am or after 7.15 pm
- The number of Production blasts averaged 4.6 per week over the previous calendar year
- The number of Development blasts averaged 34.7 per week over the previous calendar year

#### Western Mineralisation and Main Lodes (excluding Block 7):

- 0 Blast recorded >5 mm/s
- 0 Blasts recorded >10 mm/s
- 0 development blasts recorded an over pressure level over 95 dBL (10pm to 7am)
- 0 development blasts recorded an over pressure level over 105 dBL (7pm to 10pm)
- 0 Blasts recorded an over pressure level over 115dBL (7am to 7pm)
- 0 Blasts recorded an over pressure level over or 120 dBL at any time
- Percentage of development blasts over 5 mm/sec = 0% (1 July 2017 until 30 June 2018)
- Percentage of production blasts over 5 mm/sec = 4.2% (1 July 2017 until 30 June 2018)

#### Block 7:

- 0 Blasts recorded >3 mm/s
- 0 Blasts recorded >10 mm/s
- 0 Blasts recorded >50 mm/s at V6
- 0 development blasts recorded an over pressure level over 95 dBL (10pm to 7am)
- 0 development blasts recorded an over pressure level over 105 dBL (7pm to 10pm)
- 0 Blasts recorded an over pressure level over 115 dBL (7am to 7pm)

- Percentage of development blasts over 3mm/sec = 0% (1 July 2017 until 30 June 2018)
- Percentage of production blasts over 3mm/sec = 10% (1 July 2017 until 30 June 2018) (criteria does not apply in this period as not a regulator reporting period)

There was no blasting in Block 7 during June. However, during the last 12 months 5 blasts in Block 7 have exceeded 3 mm/s - 3.54 (Sept), 3.07 (Dec), 3.1 (Dec), 3.1 (Jan) and 3.45 (Jan).

#### 2.2 Noise

Noise monitoring is undertaken as per the NSW Noise Policy for Industry at a frequency of once per annum. A noise assessment was conducted in November 2017, and is next due in Q4 2018.

#### 3 Water

#### 3.1 Groundwater

There are eighteen sampling locations for groundwater. GW01 (EPL37) to GW16 (EPL52) are piezometers installed at various locations around the mine site and are sampled quarterly. There are also two sampling locations for water pumped from underground mining, Shaft 7 (EPL53) and Kintore Pit (EPL54), which are sampled monthly. A map indicating these locations can be found on the Rasp Mine web site. Groundwater monitoring is scheduled for completion in May, June, September and January. No limits are applied in the EPL to the results from groundwater monitoring.

#### **Groundwater Monitoring Requirements**

EPA Identification Number	Frequency	Parameters to be analysed
Shaft 7 EPL53	Monthly	alkalinity (calcium carbonate (CaCO <sub>3</sub> )), cadmium (Cd), calcium (Ca), chloride (Cl), electrical conductivity (EC), iron (Fe), lead Pb),
Kintore Pit (U/G dewatering) EPL54	Monthly	magnesium (Mg), manganese (Mn), pH, sodium (Na), sulphate
Piezometers EPL37 (GW01) to EPL52 (GW16)	Quarterly	(SO4), total dissolved solids (TDS) and zinc (Zn)

#### Shaft 7 (EPL53) and Kintore Pit (EPL54) Results for June

Sample Point	рН	EC (μS/cm²)	TDS (mg/l)	Alkalinity (CaCO <sub>3</sub> ) (mg/l)	SO4 (mg/l)	CI (mg/I)	Ca (mg/I)	Mg (mg/l)	Na (mg/l)	Cd (mg/l)	Pb (mg/l)	Mn (mg/l)	Zn (mg/l)	Fe (mg/l)
Shaft 7 (EPL53)	6.15	12500	10100	8	5600	1610	536	281	1670	2.41	1.62	317	1080	4.26
Kintore Pit (EPL54)	6.35	12700	10700	8	6720	1740	538	322	1730	2.08	1.39	336	819	0.05

#### Groundwater Bores (EPL37 - EPL52) Results for June

Sample Point	рН	EC (μS/cm²)	TDS (mg/l)	Alkalinity (CaCO <sub>3</sub> ) (mg/l)	SO4 (mg/l)	Cl (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	Cd (mg/l)	Pb (mg/l)	Mn (mg/l)	Zn (mg/l)	Fe (mg/l)
GW01 (EPL37)	4.55	10500	8930	1	5080	1260	289	460	1560	0.184	0.118	308	221	0.05
GW02 (EPL38)							-Bore D	ry-						
GW03 (EPL39)	5.58	14800	11300	7	4860	3130	597	388	2290	0.972	3.19	388	292	16.4
GW04 (EPL40)	6.97	14300	9980	235	4950	2920	599	502	2310	0.153	0.354	52.8	22	0.05
GW05 (EPL41	6.31	16700	15200	137	6820	3120	527	642	2560	0.753	0.772	323	255	0.05
GW06 (EPL42)	6.31	13300	11500	50	5280	2610	567	416	2030	0.656	0.09	236	150	0.05
GW07 (EPL43)	6.23	11800	9300	34	4650	2020	569	337	1760	2.86	0.211	323	336	0.05
GW08 (EPL44)	6	12100	10400	14	4480	2460	599	287	1410	2.2	0.592	686	757	0.05
GW09 (EPL45)	7.15	11500	9060	216	4320	1940	679	608	1390	0.209	0.006	11.2	15.2	0.05
GW10 (EPL46)	7.07	13800	8080	264	4610	2750	603	512	2160	0.474	0.001	36.3	43.2	0.05
GW11 (EPL47)	6.24	11900	11300	69	4990	1780	475	511	1670	2.3	0.01	124	183	0.05
GW12 (EPL48)	6.16	13300	10600	69	5580	1960	466	548	2080	1.36	0.004	74.8	183	0.05
GW13 (EPL49)							-Bore D	)ry-						
GW14 (EPL50)							-Bore D	)ry-						
GW15 (EPL51)							-Bore D	)ry-						
GW16 (EPL52)							-Bore D	)ry-						

#### 3.2 Surface Water Sample Record

There are seven sampling locations for surface water, these include surface water basins located on the mine lease to capture and retain rainfall and two locations up and down stream of an ephemeral creek located south of the mine lease boundary. A map indicating these locations can be found on the Rasp Mine web site. Sampling is undertaken in October (highest rainfall month as recorded by Bureau of Meteorology) and April.



#### **Surface Water Monitoring Requirements**

Description	Frequency	Parameters to be Analysed
Federation Way Culvert EPL29/S31-1	2 x per year , six months apart	
Ryan Street Dam EPL31/S49	2 x per year , six months apart	cadmium (Cd), chloride (Cl), electrical
Adjacent Olive Grove EPL32/S1A	2 x per year , six months apart	conductivity (EC), lead Pb), manganese
Adjacent Bowls Club EPL33 /S9-B2	2 x per year , six months apart	(Mn), pH, sodium (Na), sulphate (SO4), total dissolved solids (TDS) and zinc (Zn)
Horwood Dam EPL34/Horwood Dam	2 x per year , six months apart	
Upstream Bonanza St EPL35	2 x per year , six months apart	
Downstream Sydney Rd EPL36	2 x per year , six months apart	

#### **Surface Water Monitoring Results**

Surface water sampling was not required in June.

#### 4 Weather Data

The weather station continuously monitors the following parameters as per Point 55 of the Environmental Protection Licence.

The following parameters are required to be recorded each month as listed in the EPL 12559:-

#### Rasp Mine Weather Station (EPL55) Monitoring Requirements

Parameter	Sampling method	Units of measure	Averaging period	Frequency
Temperature at 10 metres	AM-4	degrees Celsius	15 minutes	Continuous
Wind Direction at 10 metres	AM-4	degrees in a clockwise direction from True North	15 minutes	Continuous
Wind Speed at 10 metres	AM-4	metres per second	15 minutes	Continuous
Rainfall	AM-4	millimetres	1 hour	Continuous
Sigma theta	AM-2 & AM-4	degrees	15 minutes	Continuous

**Note:** The onsite weather station currently does not report Sigma theta.



## Weather Data Summary for June

Date	Temperature		Wind	Speed	Predomina	ant Wind	Rainfall (mm)	
_	@ 10	m (°C)	@ 10	m (m/s)	Direction	n @ 10m	_	
	Min	Max	Min	Max	Cardinal	Degree	Total	
01-Jun-18	6.5	13.5	0.4	5.8	ESE	112	0.00	
02-Jun-18	6.9	16.1	0.2	5.0	South	177	0.00	
03-Jun-18	7.6	16.3	1.3	6.9	South	181	0.00	
04-Jun-18	6.4	15.2	1.4	7.9	South	183	0.00	
05-Jun-18	6.6	14.3	1.2	8.8	SSE	155	0.00	
06-Jun-18	7.7	18.0	0.8	8.6	NNE	21	0.00	
07-Jun-18	10.7	19.8	0.6	13.4	North	5	0.00	
08-Jun-18	11.6	18.5	0.1	10.2	North	5	0.02	
09-Jun-18	11.1	13.7	0.1	5.8	NW	315	0.11	
10-Jun-18	10.6	15.2	0.8	6.1	East	90	0.00	
11-Jun-18	12.3	21.0	1.4	10.1	NE	43	0.00	
12-Jun-18	8.3	14.9	0.5	9.5	West	271	0.00	
13-Jun-18	8.7	15.0	0.2	11.1	NW	316	0.00	
14-Jun-18	7.5	15.5	0.3	13.0	NW	315	0.00	
15-Jun-18	9.1	14.4	0.7	10.9	West	269	0.00	
16-Jun-18	6.2	12.4	0.8	10.5	WSW	249	0.05	
17-Jun-18	3.9	11.7	1.4	12.1	SW	224	0.00	
18-Jun-18	3.0	10.7	0.8	8.7	SSW	202	0.00	
19-Jun-18	4.7	12.6	0.1	5.1	NNE	20	0.00	
20-Jun-18	6.2	13.1	0.2	5.5	North	6	0.00	
21-Jun-18	5.8	15.6	0.2	5.5	SE	136	0.00	
22-Jun-18	6.4	16.2	0.2	4.0	East	92	0.00	
23-Jun-18	8.1	15.7	0.2	5.0	East	89	0.00	
24-Jun-18	5.6	13.1	0.9	7.2	SE	136	0.00	
25-Jun-18	4.6	10.3	0.8	7.2	SSE	159	0.00	
26-Jun-18	3.7	7.3	0.3	4.7	South	182	0.09	
27-Jun-18	3.7	11.6	0.9	7.0	South	182	0.00	
28-Jun-18	5.1	13.7	0.1	4.3	West	270	0.00	
29-Jun-18	7.5	13.9	0.3	10.4	North	355	0.00	
30-Jun-18	5.9	13.2	0.6	8.5	SW	228	0.00	



# 5 Data Log

Sample	Result Received			
Hi Volume Samplers	16-07-2018			
ТЕОМ	4-07-2018			
Dust Deposition	17-07-2018			
Vents & Bag House	27-06-2018			
Water	26-06-2018			
Blast vibration and overpressure	9-07-2018			
Weather	9-07-2018			
Date posted to web site	1-08-2018			

# **6** Correction Log

No corrections required.