



# Boral Marulan Works POELA Act 2011 Monitoring Data December 2018 calendar year

## Boral Cement Marulan, NSW

### Environmental Protection Licence No. 944

Explanation of units of measure:

mg/m<sup>3</sup> = milligrams per cubic metre

g/m<sup>2</sup>/month = grams per square metre per month

µg/m<sup>3</sup> = micrograms per cubic metre

mg/L = milligrams per litre

*Marulan South Lime Plant and Limestone Mine's webpage became live in July 2015. The monitoring data has been uploaded to the internet for public use first time in July 2015 (including historical data back to April 2012. Data is updated monthly.*

Record updated on 18/12/2018

Compliance Summary: The site is currently compliant with the Licence limits.

### 1. Annual Stack Monitoring

Test date 4<sup>th</sup> October 2017 for EPA 11- Kiln Stack

Assessable Parameter (mg/m <sup>3</sup> )	Licence Limit	2015-16	2016 -17	2017-18	2018-19
<b>Emission Source: Kiln Stack (EPA identification Number: 11)</b>					
Solid Particulates	<b>100</b>	45	0.017	30	50
Nitrogen Oxides	<b>2,000</b>	270	0.25	330	260
<b>Emission Source: Hydrator Stack (EPA identification Number: 12)</b>					
Solid Particles Particulates	<b>100</b>	7.4	0.0028	3.5	2.00

**Compliance summary:** Marulan plant is compliant with the Licence stack emission limits. Test done on Annual Stack Monitoring in October 2018.

## 2. Ambient air monitoring

### 2.1 Dust Deposition Gauges: Total Insoluble Matter (g/m<sup>2</sup>month)

This test measures the levels of the coarse dust (generated mostly from unsealed roads, raw material handling, open stockpiles, etc.). It is a measure of dust *nuisance* (dust on cars, washing, window panes) in the immediate vicinity of the source, as the heavy dust settles quickly and doesn't travel far. It is not an indication of potential health problems as it doesn't penetrate into the respiratory system due to a large size of dust particles.

**Licence limit:** Not specified.

The NSW State guideline of 4 g/m<sup>2</sup>/month (presented as 12-month rolling average) was adopted as an internal indicator of site performance.

Date published: N/A

Report received on	For the month of	Report published on	Dust Deposition Gauges (g/m <sup>2</sup> /month as 12-month rolling average)	
			EPA ID No. 1 (Nearest Residence)	EPA ID No. 16 (Stores Paddock Hill)
N/A	January 2015	N/A	1.72	3.72
N/A	February 2015	N/A	1.61	3.38
N/A	March 2015	N/A	1.81	3.33
N/A	April 2015	N/A	1.83	3.40
N/A	May 2015	N/A	1.96	3.44
17/7/15	June 2015	10/08/15	2.16	3.59
21/8/15	July 2015	07/09/15	2.20	3.56
22/9/15	August 2015	06/10/15	2.15	3.34
23/10/15	September 2015	09/11/15	2.11	3.32
20/11/15	October 2015	10/12/15	2.30	3.33
21/12/15	November 2015	11/01/16	2.15	3.38
21/1/16	December 2015	08/02/16	2.53	3.95
19/2/16	January 2016	2/3/16	2.53	3.7
18/3/16	February 2016	29/3/16	2.50	2.88
22/4/16	March 2016	22/4/16	2.51	3.82
20/5/16	April 2016	20/5/16	2.43	3.7
24/6/2016	May 2016	24/6/16	2.25	3.9
27/7/16	June 2016	27/7/16	2.07	3.8
23/8/16	July 2016	23/8/16	2.12	3.8

Report received on	For the month of	Report published on	Dust Deposition Gauges (g/m <sup>2</sup> /month as 12-month rolling average)	
2/9/16	August 2016	2/9/16	2.23	4.14
28/10/16	September 2016	28/10/16	2.33	4.3
23/11/16	October 2016	23/11/16	2.21	4.2
21/12/16	November 2016	21/12/16	2.4	4.5
25/01/17	December 2016	25/1/17	2.5	7.50
21/02/17	January 2017	21/02/17	2.77	7.52
24/03/17	February 2017	24/03/17	2.88	7.70
20/04/17	March 2017	20/04/17	2.86	7.64
17/05/17	April 2017	17/05/17	2.94	7.85
20/06/17	May 2017	20/06/17	3.10	7.63
19/07/17	June 2017	19/07/17	3.26	8.15
22/08/17	July 2017	22/08/17	3.24	8.68
20/09/17	August 2017	19/09/17	3.21	8.64
20/10/17	September 2017	20/10/17	3.24	8.63
20/11/17	October 2017	20/11/17	3.42	8.63
21/12/17	November 2017	21/12/17	3.32	8.29
16/01/18	December 2017	16/01/18	3.12	5.50
22/02/18	January 2018	06/03/18	3.05	5.36
22/03/18	February 2018	06/04/18	3.69	6.97
19/04/18	March 2018	23/04/18	3.27	7.08
16/04/18	April 2018	02/05/18	3.39	7.07
25/06/2018	May 2018	22/06/18	3.40	7.22
23/07/2018	June 2018	17/08/18	3.33	6.84
22/08/2018	July 2018		3.38	6.86

Report received on	For the month of	Report published on	Dust Deposition Gauges (g/m <sup>2</sup> /month as 12-month rolling average)	
25/09/2018	August 2018		2.62	9.62
23/10/2018	September 2018		3.02	9.88
13/11/2018	October 2018		3.26	9.72
16/12/2018	November 2018		3.50	19.23
21/1/2018 25/01/2019	December 2018		3.96	18.49

**Compliance Summary:** The site is not currently compliant with the adopted State Guideline, at EPA ID no.16 dust gauge. This gauge is located on the limestone premises and is used as an indicator to manage dust from operations. Further analysis of the dust has revealed that the majority of material was organic and likely to have been from windblown paddock grasses and bird depositions. High result for the month of February 2018, further chemical testing indicated 30% of the material in the device was CaCO<sub>3</sub>. Result for April 2018 was 5.15 at Store paddock dust gauge and we are waiting on chemistry assessment of the ash to determine possible sources.

May /June /July/August/September/ October/November/December readings for store paddock are high due to high winds and drought conditions. Also Peppertree Mine has built a waste dump very close to the dust gauge which is influencing the results. The site is in talks with the regulator to position the dust gauge to another suitable location. further chemical testing indicated 19% of the material in the device was CaCO<sub>3</sub> Dust Gauge EPA ID NO.1 at the nearest residence is compliant.

## 2.2 High Volume Air Sampling: PM<sub>10</sub> dust fraction

This test measures the levels of the fine dust suspended in the air (generated mostly from stack emissions). It is a measure of potential *health effects* (irritation of the respiratory track) as the small particles can penetrate into the airways and the lungs. Fine dust can persist in the atmosphere for days or even months before it settles and can travel some distance.

**Licence limits:** Not specified.

In absence of licence limits, the following guideline value was adopted:

- 24hr mean for PM<sub>10</sub> of 50 µg/m<sup>3</sup>, as per *National Environment Protection (Air Quality) Measure 2003*.

Date published: Not applicable (until end June 2015)

Sampling date	3/01/15	9/01/15	15/01/15	21/01/15	27/01/15	2/02/15	08/02/15	14/02/15
PM10 (µg/m <sup>3</sup> )	Motherboard failure	Motherboard failure	Motherboard failure	Motherboard failure	10.62	27.6	6.92	5.88

Sampling date	20/02/15	26/02/15	04/03/15	10/03/15	16/03/15	22/03/15	28/03/15	03/04/15
PM10 (µg/m <sup>3</sup> )	29.64	16.44	31.49	33.22	32.41	20.06	22.57	8.94

Sampling date	09/04/15	15/04/15	21/04/15	27/04/15	03/05/15	09/05/15	15/05/15	21/05/15
PM10 (µg/m <sup>3</sup> )	12.84	17.38	2.34	3.18	2.54	4.5	10.05	2.7



Sampling date	27/05/15	02/06/15
PM10 (µg/m3)	11.42	4.38

Data received from July 2015:

Sampling date	8/6/15	14/6/15	20/6/15	26/6/15	2/7/15	8/7/15	14/7/15	20/7/15
Report date	10/7/15	10/7/15	10/7/15	10/7/15	10/7/15	11/8/15	11/8/15	11/8/15
Upload date	10/8/15	10/8/15	10/8/15	10/8/15	10/8/15	07/09/15	07/09/15	07/09/15
PM10 (µg/m3)	4.51	19.19	2.35	4.98	3.02	152.41	42.03	4.40

Sampling date	26/7/15	1/8/15	7/8/15	13/8/15	19/8/15	25/8/15	31/8/15	6/9/15
Report date	11/8/15	11/8/15	11/9/15	11/9/15	11/9/15	11/9/15	11/9/15	20/10/15
Upload date	07/09/15	07/09/15	06/10/15	06/10/15	06/10/15	06/10/15	06/10/15	07/09/15
PM10 (µg/m3)	2.4	1.38	6.84	3.02	20.65	1.37	6.39	4.76

Sampling date	12/9/15	18/9/15	24/9/15	30/9/15	6/10/15	12/10/15	18/10/15	24/10/15
Report date	20/10/15	20/10/15	20/10/15	20/10/15	20/10/15	20/10/15	9/11/15	9/11/15
Upload date	07/09/15	09/11/15	09/11/15	09/11/15	09/11/15	09/11/15	10/12/15	10/12/15
PM10 (µg/m3)	10.08	8.89	10.68	20.47	22.53	8.98	21.32	23.79

Sampling date	30/10/15	5/11/15	11/11/15	17/11/15	23/11/15	29/11/15	5/12/15	11/12/15
Report date	9/11/15	21/12/15	21/12/15	21/12/15	21/12/15	21/12/15	21/12/15	15/01/16
Upload date	10/12/15	11/01/16	11/01/16	11/01/16	11/01/16	11/01/16	11/01/16	08/02/16
PM10 (µg/m3)	49.62	12.33	35.78	20.00	101.65	20.35	158.27	76.01

Sampling date	17/12/15	23/12/15	29/12/15	4/1/16	10/1/16	16/1/16	22/1/16	28/1/16
Report date	15/01/16	15/01/16	15/01/16	15/01/16	9/2/16	9/2/16	9/2/16	9/2/16
Upload date	08/02/16	08/02/16	08/02/16	08/02/16	10/3/16	10/3/16	10/3/16	10/3/16
PM10 (µg/m3)	63.88	44.76	44.31	33.85	36.94	6.13	19.44	19.94

Sampling date	3/2/16	9/2/16	15/2/16	21/2/16	27/2/16	4/3/16	10/3/16	16/3/16
Report date	9/2/16	14/3/16	14/3/16	14/3/16	14/3/16	19/4/16	19/4/16	19/4/16
Upload date	10/4/16	10/4/16	10/4/16	10/4/16	10/4/16	10/5/16	10/5/16	10/5/16
PM10 (µg/m3)	25.18	34.7	38.28	16.97	9.83	34.41	49.13	10.48

Sampling date	22/3/16	28/3/16	3/4/16	9/4/16	15/4/16	21/4/16	29/4/16	3/5/16
Report date	19/4/16	19/4/16	19/4/16	19/4/16	13/5/16	13/5/16	13/5/16	13/5/16
Upload date	10/5/16	10/5/16	10/5/16	10/5/16	10/6/16	10/6/16	10/6/16	10/6/16
PM10 (µg/m3)	3.92	16.95	21.54	29.43	28.66	16.16	23.33	6.69

Sampling date	9/5/16	15/5/16	21/5/16	27/5/16	2/6/16	8/6/16	14/6/16	20/6/16
Report date	22/6/16	22/6/16	22/6/16	22/6/16	22/6/16	22/6/16	19/7/16	19/7/16
Upload date	13/7/16	13/7/16	13/7/16	13/7/16	13/7/16	13/7/16	10/8/16	10/8/16
PM10 (µg/m3)	2.96	9.68	58.18	2.28	5.66	1.01	15.04	1.86

Sampling date	26/6/16	2/7/16	8/7/16	14/7/16	20/7/16	26/7/16	1/8/16	7/8/16
Report date	19/7/16	19/7/16	19/7/16	12/8/16	12/8/16	12/8/16	12/8/16	13/9/16
Upload date	10/8/16	10/8/16	10/8/16	10/9/16	10/9/16	10/9/16	10/9/16	10/10/16



PM10 (µg/m3)	10.05	4.61	10.50	3.41	1.75	2.78	1.83	15.59
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Sampling date	13/8/16	19/8/16	25/8/16	31/8/16	6/9/16	12/9/16	18/9/16	24/9/16
Report date	13/9/16	13/9/16	13/9/16	13/9/16	13/9/16	28/10/16	28/10/16	28/10/16
Upload date	10/10/16	10/10/16	10/10/16	10/10/16	10/10/16	10/11/16	10/11/16	10/11/16
PM10 (µg/m3)	7.38	25.42	4.46	9.10	22.52	15.06	12.76	6.93

Sampling date	30/9/16	6/10/16	12/10/16	18/10/16	24/10/16	30/10/16	5/11/16	11/11/16
Report date	28/10/16	28/10/16	28/10/16	28/10/16	18/11/16	18/11/16	18/11/16	18/12/16
Upload date	10/11/16	10/11/16	10/11/16	10/11/16	20/12/16	20/12/16	20/12/16	20/12/16
PM10 (µg/m3)	3.34	7.61	2.23	3.96	9.09	15.24	16.36	23.98

Sampling date	17/11/16	23/11/16	29/11/16	5/12/16	11/12/16	17/12/16	23/12/16	29/12/16
Report date	18/12/16	18/12/16	18/12/16	18/12/16	20/1/17	20/1/17	20/1/17	20/1/17
Upload date	20/12/16	20/12/16	20/12/16	20/12/16	10/2/17	10/2/17	10/2/17	10/2/17
PM10 (µg/m3)	23.3	18.51	24.14	50.68	27.27	13.18	34.22	17.81

Sampling date	4/1/17	10/1/17	16/1/17	22/1/17	28/1/17	3/2/17	9/2/17	15/2/17
Report date	20/1/17	20/1/17	20/1/17	13/2/17	13/2/17	13/2/17	21/3/17	21/3/17
Upload date	10/2/17	10/2/17	10/2/17	10/3/17	10/3/17	10/3/17	10/4/17	10/4/17
PM10 (µg/m3)	12.44	20.87	51.24	27.25	32.54	33.17	43.81	64.66

Sampling date	21/2/17	27/2/17	5/3/17	11/3/17	17/3/17	23/3/17	29/3/17	4/4/17
Report date	21/3/17	21/3/17	21/3/17	21/3/17	11/4/17	11/4/17	11/4/17	11/4/17
Upload date	10/4/17	10/4/17	10/4/17	10/4/17	10/5/17	10/5/17	10/5/17	10/5/17
PM10 (µg/m3)	52.19	38.37	26.36	61.15	2.74	5.44	18.92	2.02

Sampling date	10/4/17	16/4/17	22/4/17	28/4/17	4/5/17	10/5/17	16/5/17	22/5/17
Report date	16/5/17	16/5/17	16/5/17	16/5/17	16/5/17	13/6/17	13/6/17	13/6/17
Upload date	10/7/17	10/7/17	10/7/17	10/7/17	10/7/17	10/7/17	10/7/17	10/7/17
PM10 (µg/m3)	4.77	12.83	20.70	5.22	20.45	47.86	8.90	7.26

Sampling date	28/5/17	3/6/17	9/6/17	15/6/17	21/6/17	27/6/17	3/7/17	9/7/17
Report date	13/6/17	13/6/17	12/7/17	12/7/17	12/7/17	12/7/17	12/7/17	14/8/17
Upload date	10/7/17	10/7/17	10/8/17	10/8/17	10/8/17	10/8/17	10/8/17	10/9/17
PM10 (µg/m3)	5.69	17.58	3.53	14.01	6.5	27.67	17.7	3.15

Sampling date	15/7/17	21/7/17	27/7/17	2/8/17	8/8/17	14/8/17	20/8/17	26/8/17
Report date	14/8/17	14/8/17	14/8/17	14/8/17	14/8/17	note *1	note *1	note *1
Upload date	10/9/17	10/9/17	10/9/17	10/9/17	10/9/17			
PM10 (µg/m3)	6.73	15.97	26.88	8.04	3.87			

Sampling date	1/9/2017	6/9/2017 *2	14/9/17 *1	19/9/17	22/9/17 *1	25/9/17	3/10/17	7/10/17
Report date	12/9/17	12/9/17	11/10/17	11/10/17	11/10/17	11/10/17	11/10/17	11/10/17
Upload date	10/10/17	10/10/17	10/11/17	10/11/17	10/11/17	10/11/17	10/11/17	10/11/17
PM10 (µg/m3)	8.66	1.67	5.83	8.92	44.27	6.12	13.15	11.18

Sampling date	13/10/17	16/10/17 (replace ment run)	19/10/17	25/10/17	26/10/17 replace ment run	31/10/17	3/11/17 (replace ment run)	6/11/17
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		for the 13/10)			for 26/10)		for 31/10)	
Report date	machine failure *3	13/11/17	13/11/17	machine failure *3	13/11/17	machine failure*3	13/11/17	machine failure*3
Upload date		10/1/18	10/1/18		10/1/18		10/1/18	
PM10 (µg/m3)		25.40	17.20		5.48		7.12	

Sampling date	7/11/17 (replace ment run for 6/11)	12/11/17	18/11/17	24/11/17	30/11/17	6/12/17	7/12/17 replac ement run for 30/11)	12/12/17
Report date	14/12/17	14/12/17	machine failure *3	machine failure*3	machine failure*3	14/12/17	14/12/17	
Upload date	10/1/18	10/1/18				10/1/18	10/1/18	
PM10 (µg/m3)	10.62	17.47				5.60	6.27	73.51

Sampling date	18/12/17	24/12/17	30/12/17	5/01/18	11/01/18	17/01/18	23/01/18	29/01/18
Report date								
Upload date	6/03/18	6/03/18	6/03/18	6/03/18	6/03/18	6/03/18	6/03/18	6/03/18
PM10 (µg/m3)	70.11	33.99	37.34	61.79	38.41	51.02	114.45	43.09

Sampling date	4/02/18	10/02/18	19/02/18	22/02/18	28/02/18	6/03/18	12/03/18	21/03/18 <sup>*4</sup>
Report date		15/03/18	15/03/18	15/03/18	15/03/18	15/03/18	12/04/18	12/04/18
Upload date	6/04/18	6/04/18	6/04/18	6/04/18	6/04/18	6/04/18		
PM10 (µg/m3)	24.79	40.06	16.64	37.31	12.18	24.61	112.18	11.68

Sampling date	24/03/18	30/03/18	5/04/18	11/04/18	17/04/18	23/04/18	30/04/18	5/05/18
Report date	12/04/18	12/04/18	11/05/18	11/05/18	11/05/18	11/05/18	11/05/18	11/05/18
Upload date	28/05/18	28/05/18	28/05/18	28/05/18	28/05/18	28/05/18	28/05/18	28/05/18
PM10 (µg/m3)	61.09	50.30	126.5	79.1	144.84	121.08	24.89	5.22

Sampling date	11/05/18	17/05/18	22/05/18	23/05/18	29/05/18	04/06/18	10/06/18	
Report date	13/06/18		13/06/18	13/06/18	13/06/18	13/06/18	13/06/18	
Upload date	02/07/18	02/07/18	02/07/18	02/07/18	02/07/18	02/07/18		
PM10 (µg/m3)	1.53		17.18	19.87	49.09	11.70	1.58	

Sampling date	04/06/18	10/06/18	16/06/18	22/06/18	28/06/18	04/07/18		
Report date	13/06/18	13/06/18	11/07/18	11/07/18	11/07/18	11/07/18		
Upload date	02/07/18	02/07/18	17/08/18	17/08/18	17/08/18	17/08/18		
PM10 (µg/m3)	11.70	1.58	0.13	6.90	10.81	13.79		

Sampling date	10/07/18	16/07/18	22/07/18	25/07/18	28/07/18	3/08/18		
Report date	08/08/18	08/08/18	08/08/18	08/08/18	08/08/18	08/08/18		
Upload date								
PM10 (µg/m3)	7.09	4.77		3.36	13.38	38.99		

Sampling date	09/08/18	15/08/18	21/08/18	27/08/18	04/09/18	08/09/18		
Report date	19/09/18	19/09/18	19/09/18	19/09/18	19/09/18	19/09/18		
Upload date								
PM10 (µg/m3)	14.93	3.25	1.99	23.14	32.76	7.00		

Sampling date	15/09/18	20/09/18	26/09/18	02/10/18	08/10/18			
Report date	17/10/18	17/10/18	17/10/18	17/10/18	17/10/18			
Upload date								
PM10 (µg/m3)	18.30	27.02	9.35	50.98	13.00			

Sampling date	14/10/18	20/10/18	26/10/18	1/11/18				
Report date	9/11/18	9/11/18	9/11/18	9/11/18				
Upload date								
PM10 (µg/m3)	5.39	17.74	19.43	35.33				

Sampling date	7/11/18	13/11/18	19/11/18	25/11/18	1/12/18	7/12/18		
Report date	14/12/18	14/12/18	14/12/18	14/12/18	14/12/18	14/12/18		
Upload date								
PM10 (µg/m3)	38.23	86.01	35.31	10.23	14.75	37.08		

Sampling date	13/12/18	19/12/18	25/12/18	31/12/18				
Report date	14/01/18	14/01/18	14/01/18	14/01/18				
Upload date								
PM10 (µg/m3)	15.32	22.41	19.62	46.78				

**Compliance Summary:** The plant does not have a Licence limit for air-suspended particulate. It is however compliant with the adopted National guideline value, except on 4 occasions, in December 2015 and 3 in December 2017 and January 2018. The source of the higher results is not related to the Marulan South Limestone quarry operations and on further investigations appears to be associated with specific local truck movements.

Results for 201 are in compliance with the exception of 2 samples taken in March 2016 as well as a sample taken on the 21 May 2016 which exceeds the daily National Guideline value. A sample taken on the 5<sup>th</sup> December 2016 has also just exceeded the criteria. The weather conditions show that Marulan south is not likely to be the source.

Results for 2017 are in compliance with the exception of samples taken on the 16<sup>th</sup> January, 15<sup>th</sup> February, 21<sup>st</sup> February and 11<sup>th</sup> March 2017. The weather conditions show that Marulan South is not likely to be the source. Further investigation is continuing.

Results for 2018 that exceed the guideline are currently under investigation.

Note \*1 PM10 High Volume sampler failed to run on the 14, 20 and 26<sup>th</sup> August 2017. Technical assistance was sought and the mother board on the sampler changed. Additional samples have been taken during September.

Note \*2 sampling should have been conducted on the 7<sup>th</sup> September 2017; however an area wide power outage was planned. Monitoring was therefore undertaken on the 6<sup>th</sup> September 2017.

Note \*3 problems have continued with the running of the High Volume sampler. The battery pack has been replaced to determine whether this is the cause. Replacement samples have been undertaken where possible.

Note \*4. Replaces sample from 18.03.18 as no sample collected due to power outage and bushfire.

April 2018 elevated results are in caused by fire reduction exercises at Wingello and Tarago.



May 2018 Comments as in the Clients COC: Field Sample No 2- HVAS failed to run on the 17/05/18. Make up run on the 22/05/18

June / July Field sample No 3: Machine didn't run correctly on the due date (22/07/2018) full re-run on the 25/07/2018. Samples are compliant.

August results are compliant. September/ October results are compliant. The site has experienced high winds/ & dryer conditions during the start of October & November resulting in a slightly higher result just above the recommended 24hr mean for PM<sub>10</sub> of 50 µg/m<sup>3</sup>

**November results are good except for 13-11-18. A large dust cloud was recorded for NSW & has resulted in the slightly higher result for that part of the month of November. December results are compliant.**

### 3. **Water monitoring:** North Pit Bore

Current Licence requirements cover quarterly monitoring of groundwater quality in the North Pit Bore (EPA Identification No. 13).

**Licence limits:** Not specified.

The NSW State guidelines: Typical discharge limits are as follows:

Oil and Grease: 10 milligrams per litre

Total Suspended Solids: 30-50 milligrams per litre.

Sampling date	Report received on	Report published on	Oil and Grease (mg/L)	Total Suspended Solids (mg/L)
24/03/15	01/04/15	N/A	6	42
23/06/15	08/07/15	08/07/15	<5	<5
02/09/15	28/09/15	06/10/15	<5	<5
01/12/15	22/12/15	11/01/16	<5	14
31/03/16	14/04/16	10/05/16	<5	<5
30/06/16	12/07/16	10/08/16	<5	<5
09/09/16	28/09/16	28/09/16	<5	<5
13/12/16	16/01/17	10/02/17	<5	15
31/03/17	21/04/17	10/05/17	<1	156
26/06/17	13/07/17	10/08/17	<1	99
07/17	18/10/17	20/11/17	<1	17
15/01/18	05/02/18	06/03/18	<5	30
20/03/18	11/04/18	11/04/18	<5	22
05/06/18	26/06/18		<1	30
05/09/18	18/09/18		<1	9
03/12/18	17/12/18		<1	5

**Compliance Summary:** The plant does not have Licence limits for water parameters. It is however compliant with the adopted NSW guideline values.

**REPORT ENDS**