



Dunmore Lakes Sand Project

Environmental Monitoring Report

July 2018

Date Published: August 2018



Dunmore Lakes Sand Project Environmental Monitoring Report

This monitoring report is to satisfy the requirements of Section 66 (6) of the Protection of the Environment and Operations Act 1997, to make available, within 14 days of request, any monitoring data that relates to pollution under an Environment Protection Licence.

The monitoring of pollutants provided in this report is undertaken as per the requirements of Environment Protection Licence 11147 (EPL 11147 – Boral Dunmore Lakes Sand Project)

This report provides environmental monitoring data for Dunmore Lakes Sand Project for the period of Jan 2017 to July 2018.

Dunmore Lakes Sand Project Information	
Premise Details	Boral – Dunmore Lakes Sand Project
Address	Princes Highway, Dunmore NSW, 2529
Licensee	Boral Resources (NSW) PTY LTD
EPL N ^o	11147
EPL Location	http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33270&SYSUID=1&LICID=11147

Monitoring data in this report relates to the monitoring undertaken for the following environmental pollutants:

- Deposited Dust
- Water Quality

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Air Quality

Air Quality Monitoring is conducted as per condition M2.2 of EPL 11147. The air quality results for the reporting period are tabled below.

Deposited Dust

Deposited Dust (g/m²/month) results for the reporting period.

Sample Period: July 2018
 Date received: 21/05/2018
 Licensee: Dunmore Lakes Sand Project
 Licensee Address: Princes Hwy, Dunmore NSW 2529
 EPL No: 11147

Qualifications related to Dust

Air Emissions Monitoring - Dust Deposition Gauge

Results

Location	Monitoring Frequency	Pollutant	Measurement	Unit
Monitoring Point 2 (DD2)	Monthly	Ash	1.53	g/m ² /month
		Combustible Solids	0.14	g/m ² /month
		Insoluble Solids	1.67	g/m ² /month
Monitoring Point 4 (DD5)	Monthly	Ash	2.23	g/m ² /month
		Combustible Solids	0.27	g/m ² /month
		Insoluble Solids	2.50	g/m ² /month
Monitoring Point 7 (DD10)	Monthly	Ash	2.06	g/m ² /month
		Combustible Solids	0.39	g/m ² /month
		Insoluble Solids	2.46	g/m ² /month
Monitoring Point 8 (DD6)	Monthly	Ash	1.87	g/m ² /month
		Combustible Solids	0.26	g/m ² /month
		Insoluble Solids	2.13	g/m ² /month

Historical Deposited Dust Data

June 2018

Monitoring Point 2 (DD2)	Monthly	Ash	1.17	g/m ² /month
		Combustible Solids	0.43	g/m ² /month
		Insoluble Solids	1.60	g/m ² /month
Monitoring Point 4 (DD5)	Monthly	Ash	1.53	g/m ² /month
		Combustible Solids	0.19	g/m ² /month
		Insoluble Solids	1.72	g/m ² /month
Monitoring Point 7 (DD10)	Monthly	Ash	1.63	g/m ² /month
		Combustible Solids	1.15	g/m ² /month
		Insoluble Solids	2.78	g/m ² /month
Monitoring Point 8 (DD6)	Monthly	Ash	1.62	g/m ² /month
		Combustible Solids	1.15	g/m ² /month
		Insoluble Solids	2.78	g/m ² /month

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May 2018

Monitoring Point 2 (DD2)	Monthly	Ash	1.48	g/m ² /month
		Combustible Solids	0.51	g/m ² /month
		Insoluble Solids	1.98	g/m ² /month
Monitoring Point 4 (DD5)	Monthly	Ash	2.14	g/m ² /month
		Combustible Solids	0.83	g/m ² /month
		Insoluble Solids	2.97	g/m ² /month
Monitoring Point 7 (DD10)	Monthly	Ash	0.85	g/m ² /month
		Combustible Solids	0.87	g/m ² /month
		Insoluble Solids	1.72	g/m ² /month
Monitoring Point 8 (DD6)	Monthly	Ash	1.73	g/m ² /month
		Combustible Solids	1.07	g/m ² /month
		Insoluble Solids	2.80	g/m ² /month

Location	Month	Pollutant	Measurement	Unit	Comments	
Monitoring Point 2 (DD2)	April 2018	Ash	2.40	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.60 g/m ² /month of insoluble solids at Monitoring Point 8, to 2.74 g/m ² /month of insoluble solids at Monitoring Point 7. Ash is considered a better indicator for the project's contribution to local dust levels.	
Monitoring Point 4 (DD5)		Combustible Solids	0.31	g/m ² /month		
		Insoluble Solids	2.70	g/m ² /month		
		Ash	2.63	g/m ² /month		
Monitoring Point 7 (DD10)		Combustible Solids	0.05	g/m ² /month		
		Insoluble Solids	2.69	g/m ² /month		
		Ash	2.39	g/m ² /month		
Monitoring Point 8 (DD6)		Combustible Solids	0.35	g/m ² /month		
		Insoluble Solids	2.74	g/m ² /month		
		Ash	2.39	g/m ² /month		
Monitoring Point 2 (DD2)		March 2018	Combustible Solids	0.21		g/m ² /month
			Insoluble Solids	2.60		g/m ² /month
	Ash		1.74	g/m ² /month		
	Monitoring Point 4 (DD5)		Combustible Solids	0.98	g/m ² /month	
			Insoluble Solids	2.72	g/m ² /month	
			Ash	1.76	g/m ² /month	
	Monitoring Point 7 (DD10)		Combustible Solids	0.58	g/m ² /month	
			Insoluble Solids	2.33	g/m ² /month	
			Ash	1.91	g/m ² /month	
	Monitoring Point 8 (DD6)		Combustible Solids	2.29	g/m ² /month	
			Insoluble Solids	4.21	g/m ² /month	
			Ash	2.16	g/m ² /month	
Monitoring Point 2 (DD2)	February 2018	Combustible Solids	0.73	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 1.38 g/m ² /month of insoluble solids at Monitoring Point 5, to	
		Insoluble Solids	2.90	g/m ² /month		
		Ash	1.62	g/m ² /month		
		Monitoring Point 4 (DD5)	Combustible Solids	1.21		g/m ² /month
			Insoluble Solids	2.83		g/m ² /month
			Ash	1.13		g/m ² /month
		Monitoring Point 7 (DD10)	Combustible Solids	0.25		g/m ² /month
			Insoluble Solids	2.83		g/m ² /month
			Ash	1.13		g/m ² /month
		Monitoring Point 8 (DD6)	Combustible Solids	0.25		g/m ² /month
			Insoluble Solids	2.83		g/m ² /month
			Ash	1.13		g/m ² /month

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		Insoluble Solids	1.38	g/m ² /month	2.83 g/m ² /month of insoluble solids at Monitoring Point 2. Ash is considered a better indicator for the project's contribution to local dust levels.
Monitoring Point 7 (DD10)		Ash	1.35	g/m ² /month	
		Combustible Solids	0.54	g/m ² /month	
		Insoluble Solids	1.89	g/m ² /month	
Monitoring Point 8 (DD6)		Ash	1.66	g/m ² /month	
		Combustible Solids	0.59	g/m ² /month	
		Insoluble Solids	2.25	g/m ² /month	
Monitoring Point 2 (DD2)	January 2018	Ash	1.84	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 1.47 g/m ² /month of insoluble solids at Monitoring Point 7, to 2.70 g/m ² /month of insoluble solids at Monitoring Point 4. Ash is considered a better indicator for the project's contribution to local dust levels.
Monitoring Point 4 (DD5)		Combustible Solids	0.39	g/m ² /month	
		Insoluble Solids	2.22	g/m ² /month	
Monitoring Point 7 (DD10)		Ash	2.48	g/m ² /month	
		Combustible Solids	0.22	g/m ² /month	
Monitoring Point 8 (DD6)		Insoluble Solids	2.70	g/m ² /month	
		Ash	1.23	g/m ² /month	
	Combustible Solids	0.25	g/m ² /month		
	Insoluble Solids	1.47	g/m ² /month		
Monitoring Point 2 (DD2)	December 2017	Ash	1.75	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.24 g/m ² /month of insoluble solids at Monitoring Point 2, to 3.43 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels.
Monitoring Point 4 (DD5)		Combustible Solids	0.49	g/m ² /month	
		Insoluble Solids	2.24	g/m ² /month	
Monitoring Point 7 (DD10)		Ash	1.73	g/m ² /month	
	Combustible Solids	0.79	g/m ² /month		
Monitoring Point 8 (DD6)	Insoluble Solids	2.52	g/m ² /month		
	Ash	1.66	g/m ² /month		
	Combustible Solids	0.82	g/m ² /month		
	Insoluble Solids	2.47	g/m ² /month		
Monitoring Point 2 (DD2)	November 2017	Ash	0.70	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 0.92 g/m ² /month of insoluble solids at Monitoring Point 2, to 1.89 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels.
Monitoring Point 4 (DD5)		Combustible Solids	0.22	g/m ² /month	
		Insoluble Solids	0.92	g/m ² /month	
Monitoring Point 7 (DD10)		Ash	1.20	g/m ² /month	
	Combustible Solids	0.49	g/m ² /month		
Monitoring Point 8 (DD6)	Insoluble Solids	1.69	g/m ² /month		
	Ash	1.19	g/m ² /month		
	Combustible Solids	0.58	g/m ² /month		
	Insoluble Solids	1.77	g/m ² /month		
Monitoring Point 2	October 2017	Ash	1.38	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.06 g/m ² /month of insoluble solids at Monitoring Point 4, to 6.89 g/m ² /month of insoluble solids at Monitoring Point 7. Ash is considered a better indicator for the project's contribution to local dust levels.
Monitoring Point 4		Combustible Solids	0.51	g/m ² /month	
		Insoluble Solids	1.89	g/m ² /month	
Monitoring Point 7		Ash	2.15	g/m ² /month	
	Combustible Solids	1.57	g/m ² /month		
Monitoring Point 8	Insoluble Solids	3.72	g/m ² /month		
	Ash	1.85	g/m ² /month		
	Combustible Solids	1.82	g/m ² /month		
	Insoluble Solids	3.67	g/m ² /month		
Monitoring Point 2	September 2017	Ash	2.16	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from
Monitoring Point 4		Combustible Solids	1.33	g/m ² /month	
		Insoluble Solids	3.49	g/m ² /month	
Monitoring Point 7	Ash	2.53	g/m ² /month		
	Combustible Solids	1.66	g/m ² /month		
Monitoring Point 8	Insoluble Solids	4.19	g/m ² /month		
	Ash	2.33	g/m ² /month		
	Combustible Solids	1.86	g/m ² /month		
	Insoluble Solids	4.19	g/m ² /month		

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Monitoring Point 4		Ash	1.78	g/m ² /month	2.06 g/m ² /month of insoluble solids at Monitoring Point 4, to 6.89 g/m ² /month of insoluble solids at Monitoring Point 7. Ash is considered a better indicator for the project's contribution to local dust levels.
		Combustible Solids	0.27	g/m ² /month	
		Insoluble Solids	2.06	g/m ² /month	
Monitoring Point 7		Ash	4.04	g/m ² /month	
		Combustible Solids	2.86	g/m ² /month	
		Insoluble Solids	6.89	g/m ² /month	
Monitoring Point 8		Ash	2.56	g/m ² /month	
		Combustible Solids	2.27	g/m ² /month	
		Insoluble Solids	4.83	g/m ² /month	
Monitoring Point 2	August 2017	Ash	0.95	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 0.89 g/m ² /month of insoluble solids at Monitoring Point 8, to 2.84 g/m ² /month of insoluble solids at Monitoring Point 7. Ash is considered a better indicator for the project's contribution to local dust levels.
		Combustible Solids	0.47	g/m ² /month	
		Insoluble Solids	1.43	g/m ² /month	
Monitoring Point 4		Ash	1.66	g/m ² /month	
		Combustible Solids	0.51	g/m ² /month	
		Insoluble Solids	2.18	g/m ² /month	
Monitoring Point 7		Ash	1.58	g/m ² /month	
	Combustible Solids	1.26	g/m ² /month		
	Insoluble Solids	2.84	g/m ² /month		
Monitoring Point 8	July 2017	Ash	0.6	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 1.76 g/m ² /month of insoluble solids at Monitoring Point 7, to 2.54 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels.
		Combustible Solids	0.29	g/m ² /month	
		Insoluble Solids	0.89	g/m ² /month	
Monitoring Point 2		Ash	1.65	g/m ² /month	
		Combustible Solids	0.1	g/m ² /month	
		Insoluble Solids	1.80	g/m ² /month	
Monitoring Point 4		Ash	1.44	g/m ² /month	
	Combustible Solids	0.44	g/m ² /month		
	Insoluble Solids	1.88	g/m ² /month		
Monitoring Point 7	Ash	1.53	g/m ² /month		
	Combustible Solids	0.23	g/m ² /month		
	Insoluble Solids	1.76	g/m ² /month		
Monitoring Point 8	Ash	2.4	g/m ² /month		
	Combustible Solids	0.14	g/m ² /month		
	Insoluble Solids	2.54	g/m ² /month		
Monitoring Point 2	June 2017	Ash	1.32	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 1.67 g/m ² /month of insoluble solids at Monitoring Point 2, to 3.74 g/m ² /month of insoluble solids at Monitoring Point 7. Ash is considered a better indicator for the project's contribution to local dust levels.
		Combustible Solids	0.35	g/m ² /month	
		Insoluble Solids	1.67	g/m ² /month	
Monitoring Point 4		Ash	1.25	g/m ² /month	
	Combustible Solids	0.45	g/m ² /month		
	Insoluble Solids	1.7	g/m ² /month		
Monitoring Point 7	Ash	2.1	g/m ² /month		
	Combustible Solids	1.64	g/m ² /month		
	Insoluble Solids	3.74	g/m ² /month		
Monitoring Point 8	Ash	1.36	g/m ² /month		
	Combustible Solids	0.6	g/m ² /month		
	Insoluble Solids	1.97	g/m ² /month		
Monitoring Point 2	May 2017	Ash	1.18	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 1.74 g/m ² /month of insoluble solids at Monitoring Point 7, to 4.24 g/m ² /month of insoluble solids at Monitoring Point 4. Ash is considered a better indicator for the project's contribution to local dust levels.
		Combustible Solids	0.67	g/m ² /month	
		Insoluble Solids	1.85	g/m ² /month	
Monitoring Point 4		Ash	2.20	g/m ² /month	
	Combustible Solids	2.04	g/m ² /month		
	Insoluble Solids	4.24	g/m ² /month		
Monitoring Point 7	Ash	1.16	g/m ² /month		
	Combustible Solids	0.58	g/m ² /month		
	Insoluble Solids	1.74	g/m ² /month		
Monitoring Point 8	Ash	1.6	g/m ² /month		
	Combustible Solids	0.98	g/m ² /month		
	Insoluble Solids	2.58	g/m ² /month		
Monitoring	2 - 1 - 1	Ash	0.79	g/m ² /month	The deposited dust data for the

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Point 2		Combustible Solids Insoluble Solids	0.8 1.58	g/m ² /month g/m ² /month	reporting period indicates that the deposited dust results range from 0.62 g/m ² /month of insoluble solids at Monitoring Point 8, to 1.58 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels.
Monitoring Point 4		Ash Combustible Solids Insoluble Solids	0.52 0.11 0.63	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7		Ash Combustible Solids Insoluble Solids	0.66 0.15 0.82	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8		Ash Combustible Solids Insoluble Solids	0.17 0.45 0.62	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2	March 2017	Ash Combustible Solids Insoluble Solids	0.79 0.80 1.58	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 4		Ash Combustible Solids Insoluble Solids	0.52 0.11 0.63	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7		Ash Combustible Solids Insoluble Solids	0.81 1.01 0.82	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8		Ash Combustible Solids Insoluble Solids	0.17 0.45 0.62	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2	February 2017	Ash Combustible Solids Insoluble Solids	1.08 0.26 1.34	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 0.31 g/m ² /month of insoluble solids at Monitoring Point 7, to 1.71 g/m ² /month of insoluble solids at Monitoring Point 3. Ash is considered a better indicator for the project's contribution to local dust levels.
Monitoring Point 4		Ash Combustible Solids Insoluble Solids	1.54 0.17 1.71	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7		Ash Combustible Solids Insoluble Solids	0.10 0.21 0.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8		Ash Combustible Solids Insoluble Solids	0.68 0.05 0.72	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2	January 2017	Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 4		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)	December 2016	Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash Combustible Solids	3.39 2.91	g/m ² /month g/m ² /month	

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		Insoluble Solids	6.31	g/m ² /month	g/m ² /month.
Monitoring Point 2 (DD2)	November 2016	Ash	2.01	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
		Combustible Solids	0.36	g/m ² /month	
		Insoluble Solids	2.37	g/m ² /month	
Monitoring Point 4 (DD5)		Ash	2.20	g/m ² /month	
		Combustible Solids	1.08	g/m ² /month	
		Insoluble Solids	3.28	g/m ² /month	
Monitoring Point 7 (DD10)		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
		Insoluble Solids	2.22	g/m ² /month	
Monitoring Point 8 (DD6)		Ash	3.39	g/m ² /month	
		Combustible Solids	2.91	g/m ² /month	
		Insoluble Solids	6.31	g/m ² /month	
Monitoring Point 2 (DD2)	October 2016	Ash	2.01	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
		Combustible Solids	0.36	g/m ² /month	
		Insoluble Solids	2.37	g/m ² /month	
Monitoring Point 4 (DD5)		Ash	2.20	g/m ² /month	
		Combustible Solids	1.08	g/m ² /month	
		Insoluble Solids	3.28	g/m ² /month	
Monitoring Point 7 (DD10)		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
		Insoluble Solids	2.22	g/m ² /month	
Monitoring Point 8 (DD6)		Ash	3.39	g/m ² /month	
		Combustible Solids	2.91	g/m ² /month	
		Insoluble Solids	6.31	g/m ² /month	
Monitoring Point 2 (DD2)	September 2016	Ash	2.01	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
		Combustible Solids	0.36	g/m ² /month	
		Insoluble Solids	2.37	g/m ² /month	
Monitoring Point 4 (DD5)		Ash	2.20	g/m ² /month	
		Combustible Solids	1.08	g/m ² /month	
		Insoluble Solids	3.28	g/m ² /month	
Monitoring Point 7 (DD10)		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
		Insoluble Solids	2.22	g/m ² /month	
Monitoring Point 8 (DD6)		Ash	3.39	g/m ² /month	
		Combustible Solids	2.91	g/m ² /month	
		Insoluble Solids	6.31	g/m ² /month	
Monitoring Point 2 (DD2)	August 2016	Ash	2.01	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
		Combustible Solids	0.36	g/m ² /month	
		Insoluble Solids	2.37	g/m ² /month	
Monitoring Point 4 (DD5)		Ash	2.20	g/m ² /month	
		Combustible Solids	1.08	g/m ² /month	
		Insoluble Solids	3.28	g/m ² /month	
Monitoring Point 7 (DD10)		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
		Insoluble Solids	2.22	g/m ² /month	
Monitoring Point 8 (DD6)		Ash	3.39	g/m ² /month	
		Combustible Solids	2.91	g/m ² /month	
		Insoluble Solids	6.31	g/m ² /month	
Monitoring Point 2 (DD2)	July 2016	Ash	2.01	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
		Combustible Solids	0.36	g/m ² /month	
		Insoluble Solids	2.37	g/m ² /month	
Monitoring Point 4 (DD5)		Ash	2.20	g/m ² /month	
		Combustible Solids	1.08	g/m ² /month	
		Insoluble Solids	3.28	g/m ² /month	
Monitoring Point 7 (DD10)		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
		Insoluble Solids	2.22	g/m ² /month	

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Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 2 (DD2)	June 2016	Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)		Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 4 (DD5)	May 2016	Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 7 (DD10)		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)		Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 4 (DD5)	April 2016	Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 7 (DD10)		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)		Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 4 (DD5)	March 2016	Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 7 (DD10)		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)		Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 4 (DD5)	February 2016	Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)		Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash	1.61	g/m ² /month	

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Point 7 (DD10)		Combustible Solids Insoluble Solids	0.60 2.22	g/m ² /month g/m ² /month	considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)	January 2016	Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)		Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)	December 2016	Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)		Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)	November 2015	Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)		Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)	October 2015	Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)		Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)	September 2015	Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)	September 2015	Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to
Monitoring Point 4 (DD5)		Ash Combustible Solids	2.20 1.08	g/m ² /month g/m ² /month	

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		Insoluble Solids	3.28	g/m ² /month	6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 7 (DD10)		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
Monitoring Point 8 (DD6)		Insoluble Solids	2.22	g/m ² /month	
		Ash	3.39	g/m ² /month	
		Combustible Solids	2.91	g/m ² /month	
Monitoring Point 2 (DD2)	August 2015	Insoluble Solids	6.31	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
		Ash	2.01	g/m ² /month	
		Combustible Solids	0.36	g/m ² /month	
Monitoring Point 4 (DD5)		Insoluble Solids	2.37	g/m ² /month	
		Ash	2.20	g/m ² /month	
		Combustible Solids	1.08	g/m ² /month	
Monitoring Point 7 (DD10)		Insoluble Solids	3.28	g/m ² /month	
		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
Monitoring Point 8 (DD6)		Insoluble Solids	2.22	g/m ² /month	
		Ash	3.39	g/m ² /month	
		Combustible Solids	2.91	g/m ² /month	
Monitoring Point 2 (DD2)	July 2015	Insoluble Solids	6.31	g/m ² /month	
		Ash	2.01	g/m ² /month	
		Combustible Solids	0.36	g/m ² /month	
Monitoring Point 4 (DD5)		Insoluble Solids	2.37	g/m ² /month	
		Ash	2.20	g/m ² /month	
		Combustible Solids	1.08	g/m ² /month	
Monitoring Point 7 (DD10)		Insoluble Solids	3.28	g/m ² /month	
		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
Monitoring Point 8 (DD6)		Insoluble Solids	2.22	g/m ² /month	
		Ash	3.39	g/m ² /month	
		Combustible Solids	2.91	g/m ² /month	
Monitoring Point 2 (DD2)	June 2015	Insoluble Solids	6.31	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
		Ash	2.01	g/m ² /month	
		Combustible Solids	0.36	g/m ² /month	
Monitoring Point 4 (DD5)		Insoluble Solids	2.37	g/m ² /month	
		Ash	2.20	g/m ² /month	
		Combustible Solids	1.08	g/m ² /month	
Monitoring Point 7 (DD10)		Insoluble Solids	3.28	g/m ² /month	
		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
Monitoring Point 8 (DD6)		Insoluble Solids	2.22	g/m ² /month	
		Ash	3.39	g/m ² /month	
		Combustible Solids	2.91	g/m ² /month	
Monitoring Point 2 (DD2)	May 2015	Insoluble Solids	6.31	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
		Ash	2.01	g/m ² /month	
		Combustible Solids	0.36	g/m ² /month	
Monitoring Point 4 (DD5)		Insoluble Solids	2.37	g/m ² /month	
		Ash	2.20	g/m ² /month	
		Combustible Solids	1.08	g/m ² /month	
Monitoring Point 7 (DD10)		Insoluble Solids	3.28	g/m ² /month	
		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
Monitoring Point 8 (DD6)		Insoluble Solids	2.22	g/m ² /month	
		Ash	3.39	g/m ² /month	
		Combustible Solids	2.91	g/m ² /month	
Monitoring Point 2 (DD2)	April 2015	Insoluble Solids	6.31	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from
		Ash	2.01	g/m ² /month	
		Combustible Solids	0.36	g/m ² /month	
		Insoluble Solids	2.37	g/m ² /month	
		Ash	2.20	g/m ² /month	
		Combustible Solids	1.08	g/m ² /month	
		Insoluble Solids	3.28	g/m ² /month	
		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
		Insoluble Solids	2.22	g/m ² /month	
		Ash	3.39	g/m ² /month	
		Combustible Solids	2.91	g/m ² /month	

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Point 2 (DD2)		Combustible Solids Insoluble Solids	0.36 2.37	g/m ² /month g/m ² /month	reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)	October 2014	Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)	September 2014	Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)	August 2014	Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash Combustible Solids Insoluble Solids	3.39 2.91 6.31	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 2 (DD2)	July 2014	Ash Combustible Solids Insoluble Solids	2.01 0.36 2.37	g/m ² /month g/m ² /month g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
Monitoring Point 4 (DD5)		Ash Combustible Solids Insoluble Solids	2.20 1.08 3.28	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 7 (DD10)		Ash Combustible Solids Insoluble Solids	1.61 0.60 2.22	g/m ² /month g/m ² /month g/m ² /month	
Monitoring Point 8 (DD6)		Ash Combustible Solids	3.39 2.91	g/m ² /month g/m ² /month	

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		Insoluble Solids	6.31	g/m ² /month	g/m ² /month.
Monitoring Point 2 (DD2)	June 2014	Ash	2.01	g/m ² /month	The deposited dust data for the reporting period indicates that the deposited dust results range from 2.22 g/m ² /month of insoluble solids at Monitoring Point 7, to 6.31 g/m ² /month of insoluble solids at Monitoring Point 8. Ash is considered a better indicator for the project's contribution to local dust levels. The ash level for monitoring point 8 was 3.39 g/m ² /month.
		Combustible Solids	0.36	g/m ² /month	
		Insoluble Solids	2.37	g/m ² /month	
Monitoring Point 4 (DD5)		Ash	2.20	g/m ² /month	
		Combustible Solids	1.08	g/m ² /month	
		Insoluble Solids	3.28	g/m ² /month	
Monitoring Point 7 (DD10)		Ash	1.61	g/m ² /month	
		Combustible Solids	0.60	g/m ² /month	
		Insoluble Solids	2.22	g/m ² /month	
Monitoring Point 8 (DD6)		Ash	3.39	g/m ² /month	
		Combustible Solids	2.91	g/m ² /month	
		Insoluble Solids	6.31	g/m ² /month	
Monitoring Point 7 (DD10)	Ash	1.61	g/m ² /month		
	Combustible Solids	0.60	g/m ² /month		
	Insoluble Solids	2.22	g/m ² /month		
Monitoring Point 8 (DD6)	Ash	3.39	g/m ² /month		
	Combustible Solids	2.91	g/m ² /month		
	Insoluble Solids	6.31	g/m ² /month		

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Water Monitoring

Water Quality Monitoring is conducted as per condition M2.3 of EPL 11147. The water quality results for the reporting period are tabled below.

Sample
 Period: July 2018
 Dunmore Lakes Sand
 Licensee: Project
 Licensee Princes Hwy, Dunmore NSW
 Address: 2529
 EPL No: 11147

Location	Monitoring Frequency	Pollutant	Measurement	Unit	Comments
Monitoring Point 9 DW20	6 Aug 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 10 DW21	6 Aug 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 11 EPL12	6 Aug 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 12 EPL11	6 Aug 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 18 EPL13	6 Aug 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 9 DW20	28 June 2018	pH	7.8	pH	
		Total suspended solids	18	mg/L	
		Turbidity	12.6	NTU	
Monitoring Point 10 DW21	28 June 2018	pH	6.6	pH	
		Total suspended solids	48	mg/L	
		Turbidity	27.6	NTU	
Monitoring Point 11 EPL12	28 June 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 12 EPL11	28 June 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 18 EPL13	28 June 2018	pH	7.1	pH	
		Total suspended solids	<5	mg/L	
		Turbidity	4.3	NTU	
Monitoring Point 9 DW20	1 June 2018	pH	7.9	pH	The water quality data for the month of May 2018 indicates that there were no
		Total suspended solids	<5	mg/L	
		Turbidity	ND	NTU	
Monitoring Point	1 June 2018	pH	7.6	pH	

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10 DW21		Total suspended solids	<5	mg/L	instances where 20mm or more of rainfall was received at the premises within a 24 hour period.
		Turbidity	ND	NTU	
Monitoring Point 11 EPL12	1 June 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 12 EPL11	1 June 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 18 EPL13	1 June 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 9 DW20	5 March 2018	pH	7.9	pH	
		Total suspended solids	9	mg/L	The water quality data for the month of March 2018 indicates that there were no instances where 20mm or more of rainfall was received at the premises within a 24 hour period.
		Turbidity	ND	NTU	
Monitoring Point 10 DW21	5 March 2018	pH	7.4	pH	
		Total suspended solids	10	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 11 EPL12	5 March 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 12 EPL11	5 March 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 18 EPL13	5 March 2018	pH	6.8	pH	
		Total suspended solids	16	mg/L	
		Turbidity	10.0	NTU	
Monitoring Point 9 DW20	29 March 2018	pH	7.5	pH	
		Total suspended solids	7	mg/L	
		Turbidity	9.0	NTU	
Monitoring Point 10 DW21	29 March 2018	pH	7.8	pH	
		Total suspended solids	20	mg/L	
		Turbidity	4.3	NTU	
Monitoring Point 11 EPL12	29 March 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 12 EPL11	29 March 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 18 EPL13	29 March 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 9 DW20	26 February 2018	pH	7.81	pH	The water quality data for the month of February 2018 indicates that there were 2 instances where 20mm or more of rainfall was received at the premises within a 24 hour period.
		Total suspended solids	8	mg/L	
		Turbidity	12.9	NTU	
Monitoring Point 10 DW21	26 February 2018	pH	7.58	pH	
		Total suspended solids	10	mg/L	
		Turbidity	8.6	NTU	
Monitoring Point 11 EPL12	26 February 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 12 EPL11	26 February 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 18 EPL13	26 February 2018	pH	7.62	pH	
		Total suspended solids	42	mg/L	
		Turbidity	28.6	NTU	
Monitoring Point 9 DW20	20 February 2018	pH	6.7	pH	
		Total suspended solids	<5	mg/L	

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		Turbidity	21.7	NTU	
Monitoring Point 10 DW21	20 February 2018	pH	7.9	pH	
		Total suspended solids	<5	mg/L	
		Turbidity	8.1	NTU	
Monitoring Point 11 EPL12	20 February 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 12 EPL11	20 February 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 18 EPL13	20 February 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 9 DW20	31 January 2018	pH	7.3	pH	The water quality data for the month of January 2018 indicates that there were no instances where 20mm or more of rainfall was received at the premises within a 24 hour period.
		Total suspended solids	14	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 10 DW21	31 January 2018	pH	7.7	pH	
		Total suspended solids	<5	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 11 EPL12	31 January 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 12 EPL11	31 January 2018	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 18 EPL13	31 January 2018	pH	7.8	pH	
		Total suspended solids	20	mg/L	
		Turbidity	13.4	NTU	
Monitoring Point 9 DW20	December 2017	pH	7.4	pH	The water quality data for the month of December 2017 indicates that there were no instances where 20mm or more of rainfall was received at the premises within a 24 hour period.
		Total suspended solids	10	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 10 DW21	December 2017	pH	6.9	pH	
		Total suspended solids	8	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 11 EPL12	December 2017	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 12 EPL11	December 2017	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 18 EPL13	December 2017	pH	7.1	pH	
		Total suspended solids	28	mg/L	
		Turbidity	15.5	NTU	
Monitoring Point 9 DW20	18 November 2017	pH	6.6	pH	The water quality data for the month of November 2017 indicates that there was 1 instance where 20mm or more of rainfall was received at the premises within a 24 hour period.
		Total suspended solids	83	mg/L	
		Turbidity	82.2	NTU	
Monitoring Point 10 DW21	18 November 2017	pH	8.2	pH	
		Total suspended solids	52	mg/L	
		Turbidity	16.0	NTU	
Monitoring Point 11 EPL12	18 November 2017	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 12 EPL11	18 November 2017	pH	ND	pH	
		Total suspended solids	ND	mg/L	
		Turbidity	ND	NTU	
Monitoring Point 18 EPL13	18 November 2017	pH	6.5	pH	
		Total suspended solids	91	mg/L	
		Turbidity	77.5	NTU	

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Monitoring Point 9 DW20	7 November 2017	pH Total suspended solids Turbidity	ND ND ND	pH mg/L NTU	The water quality data for the month of October 2017 indicates that there was 1 instance where 20mm or more of rainfall was received at the premises within a 24 hour period.
Monitoring Point 10 DW21	7 November 2017	pH Total suspended solids Turbidity	7.3 <5 ND	pH mg/L NTU	
Monitoring Point 11 EPL12	7 November 2017	pH Total suspended solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 12 EPL11	7 November 2017	pH Total suspended solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 18 EPL13	7 November 2017	pH Total suspended solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 9 DW20	October 2017	pH Total suspended solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 10 DW21	October 2017	pH Total suspended solids Turbidity	7.5 52 0	pH mg/L NTU	
Monitoring Point 11 EPL 12	October 2017	pH Total suspended solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 12 EPL11	October 2017	pH Total suspended solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 18 EPL13	October 2017	pH Total suspended solids Turbidity	ND ND ND	pH mg/L NTU	

ND: No data

Note:

The water quality data for the month of October 2017 indicates that there was no instance where 20mm or more of rainfall was received at the premises within a 24 hour period.

Historical Water Monitoring Data

Location	Date	Pollutant	Measurement	Unit	Comments
Monitoring Point 9 DW20	September 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	The water quality data for the month of September 2017 indicates that there was no instance where 20mm or more of rainfall
Monitoring Point 10 DW21	September 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 11 EPL 12	September 2017	pH	ND	pH	

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Location	Date	Pollutant	Measurement	Unit	Comments
Point 11 EPL12	2017	Total Suspended Solids Turbidity	ND ND	mg/L NTU	was received at the premises within a 24 hour period.
Monitoring Point 12 EPL11	September 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 18 EPL13	September 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 9 DW20	August 2017	pH Total Suspended Solids Turbidity	7.8 14 6.9	pH mg/L NTU	The water quality data for the month of August 2017 indicates that there was one instance where 20mm or more of rainfall was received at the premises within a 24 hour period.
Monitoring Point 10 DW21	August 2017	pH Total Suspended Solids Turbidity	7.7 21 5.8	pH mg/L NTU	
Monitoring Point 11 EPL12	August 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 12 EPL11	August 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 18 EPL13	August 2017	pH Total Suspended Solids Turbidity	7.4 23 21.9	pH mg/L NTU	
Monitoring Point 9 DW20	July 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 10 DW21	July 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 11 EPL12	July 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	The water quality data for the month of July 2017 indicates that there were no instances where 20mm or more of rainfall was received at the premises within a 24 hour period.
Monitoring Point 12 EPL11	July 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 18 EPL13	July 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 9 DW20	7 th June 2017	pH Total Suspended Solids Turbidity	7.8 24 25	pH mg/L NTU	
	8 th June 2017	pH Total Suspended Solids Turbidity	8.0 28 34	pH mg/L NTU	
Monitoring Point 10 DW21	7 th June 2017	pH Total Suspended Solids Turbidity	7.3 43 18	pH mg/L NTU	
	8 th June 2017	pH Total Suspended Solids Turbidity	7.1 18 10.1	pH mg/L NTU	The water quality data for the month of June 2017 indicates that there were two instances where 20mm or more of rainfall was received at the premises within a 24 hour period.
Monitoring Point 11 EPL12	7 th June 2017	pH Total Suspended Solids Turbidity	7.0 313 380	pH mg/L NTU	
	8 th June 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	

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Location	Date	Pollutant	Measurement	Unit	Comments	
Monitoring Point 12 EPL11	7 th June 2017	pH Total Suspended Solids Turbidity	7.4 1108 950	pH mg/L NTU		
	8 th June 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU		
Monitoring Point 18 EPL13	7 th June 2017	pH Total Suspended Solids Turbidity	7.1 26 28	pH mg/L NTU		
	8 th June 2017	pH Total Suspended Solids Turbidity	7.1 26 15	pH mg/L NTU		
Monitoring Point 9 DW20	20 th May 2017	pH Total Suspended Solids Turbidity	7.5 24 31	pH mg/L NTU		The water quality data for the month of May 2017 indicates that there was one instance where 20mm or more of rainfall was received at the premises within a 24 hour period.
Monitoring Point 10 DW21	20 th May 2017	pH Total Suspended Solids Turbidity	7.4 25 27	pH mg/L NTU		
Monitoring Point 11 EPL12	20 th May 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU		
Monitoring Point 12 EPL11	20 th May 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU		
Monitoring Point 18 EPL13	20 th May 2017	pH Total Suspended Solids Turbidity	7.1 18 18	pH mg/L NTU		
Monitoring Point 9 DW20	April 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	The water quality data for the month of April 2017 indicates that there were no instances where 20mm or more of rainfall was received at the premises within a 24 hour period.	
Monitoring Point 10 DW21	April 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU		
Monitoring Point 11 EPL12	April 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU		
Monitoring Point 12 EPL11	April 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU		
Monitoring Point 18 EPL13	April 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU		
Monitoring Point 9 DW20	3rd March 2017	pH Total Suspended Solids Turbidity	7.9 9.2 22.0	pH mg/L NTU		The water quality data for the month of March 2017 indicates that there were five (5) instances where 20mm or more of rainfall was received at the premises within a 24 hour period. Monitoring locations are ephemeral water courses with water only present generally following significant rainfall.
	4th March 2017	pH Total Suspended Solids Turbidity	8.1 9.6 23.0	pH mg/L NTU		
	17th March 2017	pH Total Suspended Solids Turbidity	6.7 45.0 58.0	pH mg/L NTU		
	23rd March 2017	pH Total Suspended Solids Turbidity	6.9 15.0 39.0	pH mg/L NTU		
	31st March 2017	pH Total Suspended Solids Turbidity	7.1 16.0 27.0	pH mg/L NTU		

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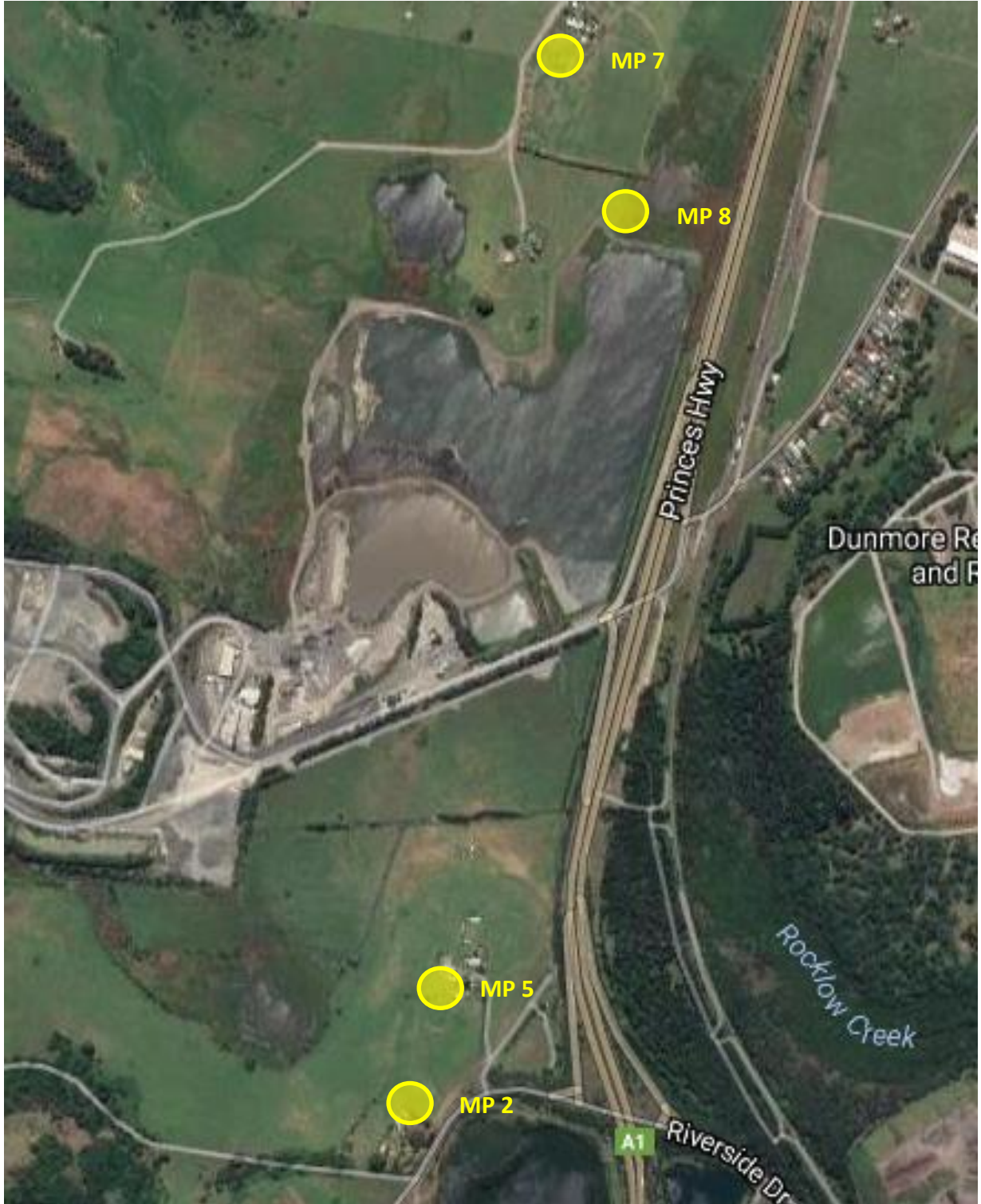
Location	Date	Pollutant	Measurement	Unit	Comments
Monitoring Point 10 DW21	3rd March 2017	pH	ND	pH	
		Total Suspended Solids	ND	mg/L	
		Turbidity	ND	NTU	
	4th March 2017	pH	ND	pH	
		Total Suspended Solids	ND	mg/L	
17th March 2017	Turbidity	ND	NTU		
	pH	ND	pH		
23rd March 2017	Total Suspended Solids	ND	mg/L		
	Turbidity	ND	NTU		
31st March 2017	pH	ND	pH		
	Total Suspended Solids	ND	mg/L		
Monitoring Point 11 EPL12	3rd March 2017	Turbidity	ND	NTU	
		pH	7.9	pH	
		Total Suspended Solids	2.0	mg/L	
	4th March 2017	Turbidity	14.0	NTU	
		pH	8.5	pH	
17th March 2017	Total Suspended Solids	1.6	mg/L		
	Turbidity	15.2	NTU		
23rd March 2017	pH	6.8	pH		
	Total Suspended Solids	84.0	mg/L		
31st March 2017	Turbidity	24.0	NTU		
	pH	6.9	pH		
Monitoring Point 12 EPL11	3rd March 2017	Total Suspended Solids	5.2	mg/L	
		Turbidity	17.0	NTU	
		pH	6.7	pH	
	4th March 2017	Total Suspended Solids	7.6	mg/L	
		Turbidity	12.0	NTU	
Monitoring Point 18 EPL13	3rd March 2017	pH	8.1	pH	
		Total Suspended Solids	21.0	mg/L	
		Turbidity	62.0	NTU	
	4th March 2017	pH	8.5	pH	
		Total Suspended Solids	5.6	mg/L	
17th March 2017	Turbidity	26	NTU		
	pH	7.2	pH		
23rd March 2017	Total Suspended Solids	2.0	mg/L		
	Turbidity	58.0	NTU		
Monitoring Point 18 EPL13	3rd March 2017	pH	6.7	pH	
		Total Suspended Solids	4.4	mg/L	
		Turbidity	18.0	NTU	
	4th March 2017	pH	7.9	pH	
		Total Suspended Solids	9.6	mg/L	
17th March 2017	Turbidity	58.0	NTU		
	pH	7.9	pH		
Monitoring Point 18 EPL13	3rd March 2017	Total Suspended Solids	17.0	mg/L	
		Turbidity	14.0	NTU	
		pH	7.9	pH	
	4th March 2017	Total Suspended Solids	8.4	mg/L	
		Turbidity	27.5	NTU	
17th March 2017	pH	6.7	pH		
	Total Suspended Solids	10.0	mg/L		
23rd March 2017	Turbidity	58.0	NTU		
	pH	6.7	pH		
Monitoring Point 18 EPL13	3rd March 2017	Total Suspended Solids	14.0	mg/L	
		Turbidity	28.0	NTU	
		pH	7.9	pH	
	4th March 2017	Total Suspended Solids	17.0	mg/L	
		Turbidity	14.0	NTU	
17th March 2017	pH	6.7	pH		
	Total Suspended Solids	10.0	mg/L		
23rd March 2017	Turbidity	58.0	NTU		
	pH	6.7	pH		

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Location	Date	Pollutant	Measurement	Unit	Comments
	31st March 2017	pH Total Suspended Solids Turbidity	7.1 5.2 27.0	pH mg/L NTU	
Monitoring Point 9 DW20	8th February 2017	pH Total Suspended Solids Turbidity	7.45 5.6 6.8	pH mg/L NTU	The water quality data for the month of February 2017 indicates that there were two (2) instances where 20mm or more of rainfall was received at the premises within a 24 hour period. Monitoring locations are ephemeral water courses with water only present generally following significant rainfall.
	26 th February 2017	pH Total Suspended Solids Turbidity	8.2 3.6 28	pH mg/L NTU	
Monitoring Point 10 DW21	8th February 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
	26 th February 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 11 EPL12	8th February 2017	pH Total Suspended Solids Turbidity	6.65 4.8. 7.5	pH mg/L NTU	
	26 th February 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 12 EPL11	8th February 2017	pH Total Suspended Solids Turbidity	7.7 9.6 20	pH mg/L NTU	
	26 th February 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 18 EPL13	8th February 2017	pH Total Suspended Solids Turbidity	6.8 53 90	pH mg/L NTU	
	26 th February 2017	pH Total Suspended Solids Turbidity	8.00 3.2 29.5	pH mg/L NTU	
Monitoring Point 9 DW20	January 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	The water quality data for the month of January 2017 indicates that there were no instances where 20mm or more of rainfall was received at the premises within a 24 hour period.
Monitoring Point 10 DW21	January 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 11 EPL12	January 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 12 EPL11	January 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
Monitoring Point 18 EPL13	January 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	
	January 2017	pH Total Suspended Solids Turbidity	ND ND ND	pH mg/L NTU	

Dunmore Lakes Monitoring Point 18 EPL13kes Sand Project Monitoring Locations.

Deposited Dust Monitoring Locations



Dunmore Lakes Sand Project Monitoring Locations.

Water Quality Monitoring Locations

