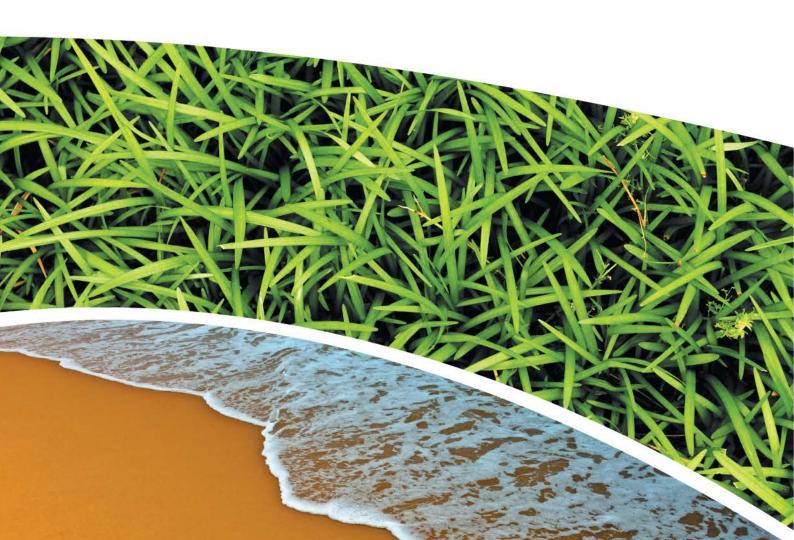


JANUARY DUST MONITORING REPORT CONCRUSH FACILITY, TERALBA

Prepared for CONCRUSH PTY LTD
Prepared by RCA Australia
RCA ref 13001a-409/0
FEBRUARY 2021





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APPENDIX A

LOG OF ADJUSTED 'B' DUST GAUGES

APPENDIX B

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LABORATORY REPORT SHEETS



RCA ref 13001a-409/0

RCA AUSTRALIA GEOTECHNICAL • ENVIRONMENTAL

24 February 2021

Concrush Pty Ltd 21 Racecourse Road Teralba NSW 2284

Attention: Mr Kevin Thompson

Geotechnical Engineering

Engineering Geology

Environmental Engineering

Hydrogeology

Construction Materials Testing

Environmental Monitoring

Sound & Vibration

Occupational Hygiene

JANUARY DUST MONITORING REPORT CONCRUSH FACILITY, TERALBA

1 INTRODUCTION

This report presents the findings of dust monitoring undertaken at the Concrush resource recovery facility, situated in Teralba.

The site is an operational facility over approximately half of the monitored area; the remainder of the site is currently vacant land and has been approved for an expansion to the operations. At the time of site attendance there had been only minor works undertaken on the expansion component of the site comprising the removal of vegetation, grading of the site including placement of material, crushing of concrete identified within stockpiles on the site, and partial excavation of a proposed sediment basin.

The monitoring undertaken has been detailed in an Operational Air Quality Management Plan (OAQMP, Ref [1]) which has been submitted as part of the approval process.

2 SITE IDENTIFICATION AND DESCRIPTION

The site is described as at 21 Racecourse Road, Teralba and part Lot 2, DP 220347. Additional site details are shown in **Table 1** and the site extent is shown in **Figure 1** below.

Table 1Site Details

Current zoning (Ref [2])	IN1 – General Industrial
Current and proposed use	Current: Existing Concrush facility and vacant/unused land within the proposed expansion area
	Proposed: Expanded Concrush facility over entire portion of site.
Size of site	Approximately 4.8ha (existing Concrush facility 2.4ha)
Surrounding land use to the:	Lot 1 DP220347
North	Industrial – car wreckers operated by others.
	Part of Lot 2 DP220347
South	Industrial – scrap metal recycling yard operated by others
East	Racecourse Road and then Cockle Creek
West	Main Northern Rail line and then wetlands
Nearest sensitive receptor (human health)	Residential housing located approximately 360m south east across Cockle Creek.
Nearest sensitive receptor (environmental)	Cockle Creek located approximately 35m east and wetland approximately 30m west



Figure 1 Project Site Location and Layout



3 MONITORING DETAILS

A total of five (5) monitoring locations are situated on site as shown in **Figure 2** below. At four (4) of these locations (DG1-DG4) there are two (2) dust depositional bottles situated on stands installed in accordance with the relevant Australian Standard (Ref [3]). An additional, singular, dust gauge (DG5A) and a real time dust monitor are situated on the southern portion of the roof of the office adjacent to the weigh station.



Figure 2 Approximate Placement of Dust Deposition Gauges and Real Time Monitor.

The 'B' gauges are managed by Concrush personnel to specifically monitor only the times that the Concrush facility is operational. This is achieved by placing a cover (plastic and steel) over the top of the funnel and bottle at the end of the Concrush operations (~4.00 p.m.) and removing the cover at the commencement of the Concrush operations (~6.00-6.30 a.m.). A log of the adjustments has been kept for the month of January and this is included as **Appendix A**: it is noted that monitoring has not been facilitated on weekends, along with several days during the week. Based on the data provided, the 'B' gauges were not actively monitoring dust deposition for approximately 75% of the monitoring period.

The 'A' gauges are not adjusted by Concrush personnel and have continuously monitored the site for the full period between deployment and removal.



3.1 **GUIDELINES**

The NSW EPA guidelines (Ref [4]) nominates the criteria for depositional dust as detailed in Table 2 below.

Table 2 Depositional Dust: Impact Assessment Criteria

Average Period	Maximum increase in deposited dust level	Maximum total deposited dust level	Sampling Frequency
Annual	2 g/m²/month	4 g/m ² /month	Monthly

The NSW EPA guidelines (Ref [4]) nominate additional criteria:

- PM_{2.5} daily average 0.025mg/m³, annual average 0.008 mg/m³.
- PM₁₀ daily average 0.05 mg/m³, annual average 0.025 mg/m³.
- TSP_{annual} average 0.09 mg/m³.

It is noted that there is no relevant Australian Standard for the methodology employed by the real time monitor, nor is the methodology included in the NSW EPA guidelines (Ref [5]); however, concentrations recorded by the real time monitor are considered appropriate for comparative purposes to trigger a review of dust control measures.

3.2 **WEATHER**

The real time dust monitor recorded conditions every five (5) minutes¹ continuously through until the end of the month. The monitor provides data with regards to wind direction and speed, air temperature, relative humidity and air pressure.

A summary of the January results is presented in **Table 3** below and **Figure 3**.

Table 3 January Weather Summary Data

	Maximum (date and time)	Minimum (date and time)
Wind Speed (m/s)	6.434 (27 th January 2.35 p.m.)	0 (multiple occasions)
Air Temperature (°C)	38.7 (26 th January 2.45 p.m.)	11.9 (21 st January multiple occasions)
Relative Humidity (%)	99.5 (31 st January, 5.40 a.m., 5.45 a.m.)	21.4 (16 th January 11.45 a.m.)
Air Pressure (mBar)	1022.8 (20 th January, multiple occasions)	999.5 (26 th January multiple occasions)

¹ Data was not recorded at midnight for any of the days within the monitoring period.







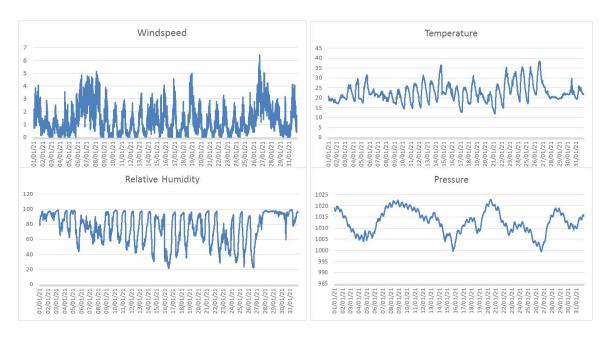


Figure 3 Weather Summary 1st January – 31st January

The wind speed was below the 5m/s (18km/h, Ref [1]) threshold for application of dust suppression measures for the majority of the monitoring period, with the exception of 14 occasions:

- 8th January 10.05 a.m.
- 19th January 2.45 p.m.
- 27th January multiple times in afternoon.
- 28th January 2.25 a.m. and 3.25 a.m.

The winds were predominantly from the south with the highest winds from various directions. South winds were recorded for approximately 15% and south-south easterly winds were recorded for approximately 9.3% of the monitoring period. The wind rose for the monitoring period is shown as **Figure 4**.

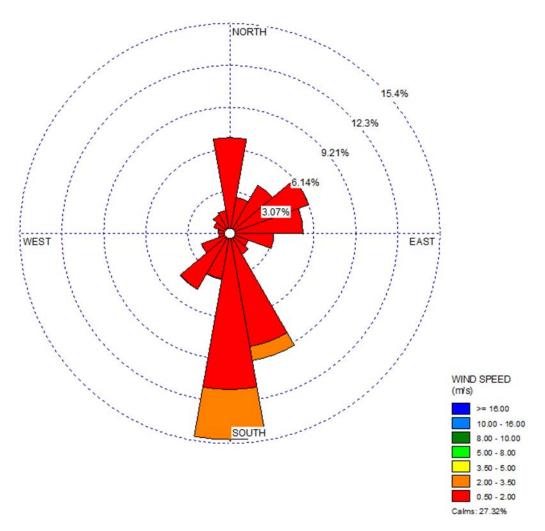


Figure 4 Wind Rose 1st January – 31st January

4 MONITORING RESULTS

4.1 DEPOSITIONAL DUST GAUGES

RCA collected the bottles from 11.50 a.m. to 1.00 p.m. on the 29th January 2021 which was the 30th day following the previous collection of the gauges on the 31st December 2020. All gauges, with the exception of DG1A which was missing and was replaced during the collection, were observed to be unbroken and the cover that has been used to cover the 'B' gauges was located at each of those gauges. Of note: DG5A had not been able to be collected in the December round due to access issues and as such the monitoring period is outside the recommended (Ref [5]) 28-32 days. The field sheet is included as **Appendix B**.

The results of the monitoring at each of the locations for this month is presented below in **Table 4**. Laboratory report sheets are included in **Appendix C**.



 Table 4
 January Dust Monitoring Results

	Water Volume (mL)	Insoluble Solids (g/m²)	Ash (g/m²)	Combustible Matter (g/m²)
DG1A	-	-	-	-
DG1B	1500	0.9	0.6	0.3
DG2A	2200	0.6	0.3	0.3
DG2B	600	2.3	2.0	0.3
DG3A	1750	5.9	4.9	1.0
DG3B	900	4.1	3.2	0.9
DG4A	2200	3.7	3.0	0.7
DG4B	800	6.6	5.6	1.0
DG5A	5150	1.9	1.4	0.5

BOLD identifies where results of the 'A' gauges are in excess of annual average criterion (Ref [4]) which does not apply to individual results.

All concentrations of the 'A' gauges are below the annual average criterion (Ref [4]) should the concentrations be maintained at this level as shown on **Figure 5** below. There is insufficient data to be able to assess the results to the maximum increase criterion (Ref [4]) although it is noted that the increase in DG3A and DG4A are greater than 2g/m² from the December result. It is noted that, due to the adjustment occurring at the 'B' gauges, that it is not considered appropriate to compare the results to the criteria (Ref [4]).

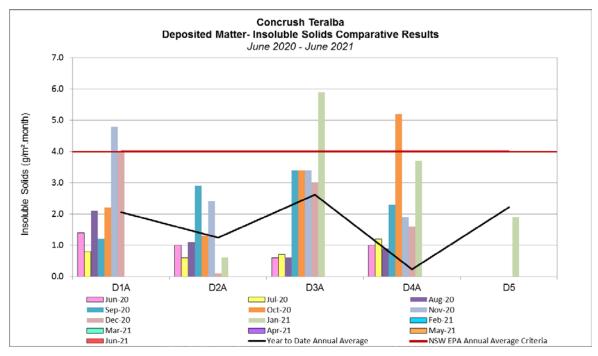


Figure 5 Year to Date Dust Monitoring Results



The water volume collected in the bottles indicates that the 'B' gauges have been monitoring for a lesser period that the 'A' gauges. The dust monitoring results from the 'B' gauges are generally below the 'A' gauges at each location with the exception of DG2B and DG4B being higher than DG2A and DG4A respectively. The reason for this is unknown however this has been an issue with the previous monitoring rounds.

The majority of detected insoluble solids are related to 'ash' which comprises non-combustible matter and would include the types of particles that may originate from the Concrush site however would also be present in dust from other sources. Some coal dust, such as may be originating from adjacent sites, may also remain in the 'ash' component of the sample.

It is noted that Concrush personnel have previously observed birds ('willy wagtails') using the gauges as baths and this may have had some impact on the water and dust content of the gauges.

4.2 REAL TIME DUST MONITOR

The real time dust monitor recorded conditions every five (5) minutes² continuously through until the end of the month. The monitor provides data with regards to $PM_{2.5}$, PM_{10} and PM_{total} . The PM_{total} concentration has been compared to the TSP annual average criterion.

A summary of the January results is presented in **Table 5** below and **Figure 6** below presents the $PM_{2.5}$ and PM_{10} data. Noting that the results have been not been obtained by a listed approved method for air quality (Ref [5]) and not considered directly comparable with criteria (Ref [4]):

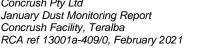
- The daily average of PM_{2.5} and PM₁₀ are below the relevant criteria (Ref [4]).
- The annual average of the data for the period 1st January 31st January is less than the relevant annual average criteria (Ref [4]) for PM_{2.5} and PM_{total}, with PM₁₀ being slightly above the annual average, noting that twelve (12) months of data is yet to be collected.

 Table 5
 January Particle Summary Data

	Maximum (date and time)	Minimum (date and time)	Maximum Daily Average
PM _{2.5}	0.092 (14 th January 9.20 a.m.)	0 (multiple occasions)	0.011 (14 th January)
PM ₁₀	1.072 (14 th January 9.20 a.m.)	0 (28 th January 1.15 a.m., 5.25 a.m.)	0.087 (14 th January)
PM _{total}	1.175 (14 th January 9.20 a.m.)	0 (28 th January 1.15 a.m.)	0.095 (14 th January)

BOLD identifies where results are in excess of criteria (Ref [4]). Concentrations in mg/m³

² Data was not recorded at midnight for any of the days within the monitoring period.







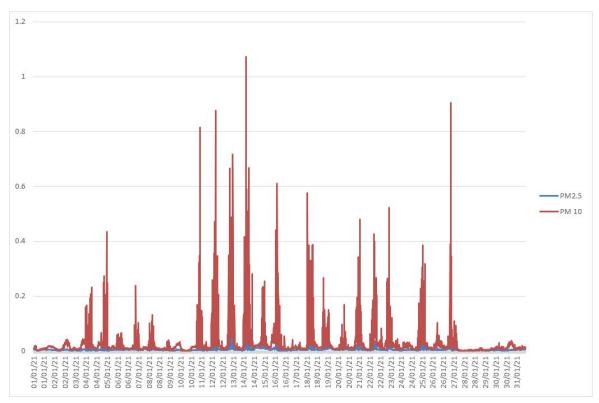


Figure 6 PM_{2.5} and PM₁₀ 1st January to 31st January

 PM_{10} is the dominant particle size of those monitored by the real time monitor.

A summary of the January PM_{10} results in 15 minute increments is presented **Figure 7** noting that this increment correlates with the alarms set to notify Concrush of:

- $PM_{10} > 0.05 \text{ mg/m}^3$
- Wind speed >5m/s.



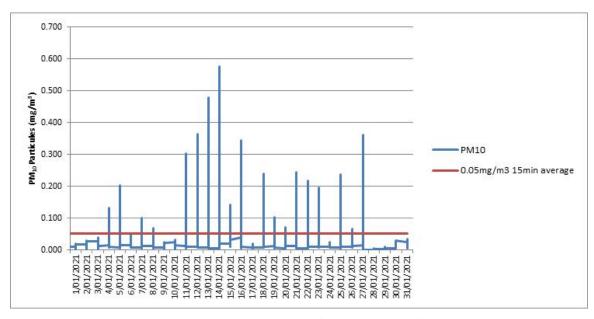


Figure 7 PM₁₀ 15 Minute Daily Average 1st January to 31st January

The PM_{10} 15 minute daily average appears to coincide with the maximum and minimum 5 minute data with the highest 15 minute average recorded on the 14^{th} January and lowest recorded on the 28^{th} January.

The data has also been graphed for an eight (8) hour average based on a work day cycle and a twenty-four (24) hour average in **Figure 8** and **Figure 9** below.

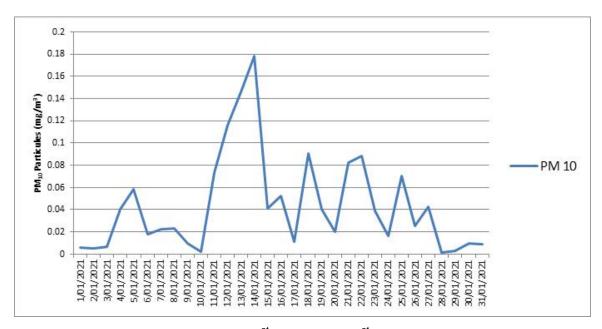


Figure 8 PM₁₀ 8 Hour Average 1st January to 31st January



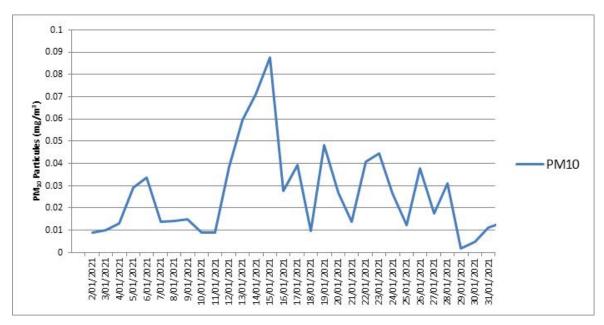


Figure 9 PM₁₀ 24 Hour Average 1st January to 31st January

The higher PM₁₀ 8 hour average and 24 hour average appear to coincide with higher wind speed and the direction, with the wind direction primarily a northerly direction during the higher recording within the January monitoring period.

5 ASSESSMENT OF DUST MANAGEMENT EFFECTIVENESS

The monitoring data for the month of January indicates some uncertainty with regards to the effectiveness of dust controls. It is noted that the OAQMP (Ref [1]) hasn't yet been fully implemented as the expansion has not yet been commenced.

All the depositional dust gauges indicate results which are below the relevant criterion (Ref [4]) with the exception of DG3A however the results would be below the annual average in the event that the concentrations remain the same as previously monitored rounds. It is noted that the January results represent a significant increase compared to earlier months in DG3A; the results of the other gauges are consistent with the previous results. It is unclear as to what has resulted in the higher 'B' gauge result: further consideration will be required in subsequent months of monitoring as it is noted that the difference is higher than what has been previously measured.



The real time monitor, which does not use a NSW EPA approved (Ref [5]) sampling methodology, indicates that there were periods of dust which are in excess of the 24hr average criterion (Ref [4]) for PM_{10} in January. It is noted that the maximum daily average in December was also in excess of the annual TSP criterion. These dust conditions have increased in general from those observed in November: this generally correlates with clearance of vegetation on the expansion portion of the site and while there is limited trafficking at the expansion component it is possible that the works have contributed to the monitored dust levels. Rainfall at Nobbys Head in December (>38.4mm³) and January (43.4mm) has been below average and as such there may be a higher than average potential for dust generation at the site.

RCA's observations on the 29th January regarding site activities that are associated with dust generation and suppression were:

- Crushing of concrete.
- Movement of crushed concrete and aggregate from crushing area to stockpiles by frontend loader.
- No water spraying of stockpiles by either sprinkler system of by onsite staff with a
 hose and spraying of roads by watercart was being undertaken due to very heavy rain
 events earlier in the day and light rain events during RCA's attendance at the site.

No visible dust was observed by RCA during the time of fieldwork: photographs taken during the period RCA were on site are shown in **Figure 10** below.

³ Data is incomplete







Figure 10 Site Photographs 29th January 2021

The wind at the time of inspection was from the east north east in the order of 1.0-2.5m/s and readings of $PM_{2.5}$ reached a maximum of 0.002mg/m³, PM_{10} reached a maximum of 0.003 mg/m³ and TSP reached a maximum of 0.003 mg/m³.

6 LIMITATIONS

This report has been prepared for Concrush Pty Ltd in accordance with an agreement with RCA Australia (RCA). The services performed by RCA have been conducted in a manner consistent with that generally exercised by members of its profession and consulting practice.

This report has been prepared for the sole use of Concrush Pty Ltd. The report may not contain sufficient information for purposes of other uses or for parties other than Concrush Pty Ltd. This report shall only be presented in full and may not be used to support objectives other than those stated in the report without written permission from RCA Australia.

Yours faithfully

RCA AUSTRALIA

Richie Lamont Environmental Scientist Fiona Brooker Environmental Services Manager

Throoker

REFERENCES

- [1] RCA Australia, Operational Air Quality Management Plan (OAQMP) for Expansion of the Concrush Resource Recovery Facility, V2.0, July 2020.
- [2] Lake Macquarie City Council Local Environmental Plan 2014, under the Environmental Planning and Assessment Act 1979, published 2014.
- [3] AS/NZS 3580.1.1:2016 Methods for sampling and analysis of ambient air: Guide to siting air monitoring equipment, May 2016.
- [4] NSW EPA, Approved Methods for the Modelling and Assessment of Air Pollutants in NSW January 2017.
- [5] NSW EPA, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW, January 2007.



Appendix A

Log of Adjusted 'B' Dust Gauges



Monthly Dust Gauge Document

The dust gauges are on the blue marked poles

Date	Lid Off – Time & Initial	Lid Cloşed – Time & Initial
30-11-20	6.00 1/	4.30
01-12-20	6.60 18	4.30 fl
02-12-20	60011	430 14
03-12-20	6.3d JL,	CA 30 1/2
04-12-20	7.0011	4.00/1
07-12-20	6.301	4-06 M
0.8-12-20	6.00//	5.60//
09-12-20	63011	4.00 MC
10-12-20	6.30 Mf	4.00 /
11-12-20	6-X1/1	4.001
15-12-20	6.00 M	4.00 1
15-12-20	6.30 M	4.00/1
17-12-20	6-00 /	4-ce gl
10-12-20	6.00 1	3.30/16
21-12-20	6.00 /	4-60196
22-12-26	6.00/16	4-061/1
23-12-28	6-06 11	4-66/10
04-01-21	6-001/	7-004/1
05-017	6-00	7.00 1
06 -01-11	6.00	(1001)
61-01-01	6.00	G-0011 C
00-01-0	7 3	. 4.001
12 -01 -21	6.30.	11.49/11
12-01-21	6.30/1	4.00/2
13-01-20	6 30 1	4.00%
15 00 00	6.30 1	4.00 M
18-01-01	6.20	1. (Y/ N
19 - 1 11	6.30 16 6.30 16 6.30 16 6.20 16 6.30 11	(s.cv.)
20 11	6-30 /10	4.00
21-61-0	6.30 12	4-00
13-01-21 14-01-21 15-01-21 18-01-21 19-01-21 20-01-2 21-01-2	6.70	
20 -01-2	6	V

ADMIN P.O. Box 312 WARNERS BAY NSW 2282 P: (02) 4958 3777 (Admin)

ABN 29 097 606 543 E: info@concrush.com.au www.concrush.com.au YARD LOCATION 21 Racecourse Rd, Teralba NSW 2284 P: (02) 4958 3777 (Sales) M: 0401 804 556



Monthly Dust Gauge Document

The dust gauges are on the blue marked poles

Date	Lid Off – Time & Initjal	Lid Closed – Time & Initial
25/9/21	6.00 //	4.00
26/01/21	Ast lay	
27/01/21	6.00	4.00 /
28/6/21	6-co //	4:00 1
70/121		7,00
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	40	

ADMIN P.O. Box 312 WARNERS BAY NSW 2282 P: (02) 4958 3777 (Admin)

ABN 29 097 606 543 E: <u>info@concrush.com.au</u> www.concrush.com.au YARD LOCATION 21 Racecourse Rd, Teralba NSW 2284 P: (02) 4958 3777 (Sales) M: 0401 804 556

Appendix B

Field Sheet



STATIC DUST GAUGES - FIELD SHEET

ENV-F075-1

Client:

Concrush

21 Racecourse Road, Teralba

Date On:

Location:

31/12/2020

Date Off:

29/01/2021

Job Number:

13001a

Month/Year:

January

Technician:

RJL/MB

Field Sheet: Page 1 of 1

Field ID (Job No + Gauge No.)	Lab ID (To be entered by Lab Technician on receipt of samples)	Time Serviced	Funnel Number (if replaced)	Approx. Volume	Notes	Comments
DG1A						replaced
DG1B	-	12-35		30	17	v epiace a
DG2A		12.45		40	7	·
DG2B		12.45		20	7	
DG3A		12-10		20	I	
DG3B		12.10		30	7	
DG4A		12.55		40	I	
DG4B		12-55		20	I	
DG5		11.56		100%	I	was out for 2 months
-						U

Appendix C

Laboratory Report Sheets





Concrush Pty Ltd PO Box 362 Merewether NSW 2291

Attention Helen Milne

Project: RCA ref 13001a-309/0

Date: 12/02/2021

Client reference: Dust Report January 2020

Received date: 4/01/2021 Number of samples: 8

Client order number: N/A Testing commenced: 6/01/2021

CERTIFICATE OF ANALYSIS

1 ANALYTICAL TEST METHODS

ANALYSIS	METHOD	UNITS	ANALYSING LABORATORY	NATA ANALYSIS / NON NATA
Dust Depositional Gauge (DDG)	ENV-LAB004*	g/m².month	RCA Laboratories - Environmental	NATA

^{*} The analytical procedures used by RCA Laboratories - Environmental are based on established internationally recognised procedures such as APHA and Australian Standards





2 **RESULTS**

ANALYSIS	UNITS	DG1A	DG1B	DG2A	DG2B			
Depositional Dust Gauge (DDG)								
Sample Number	-	012113001a001	012113001a002	012113001a003	012113001a004			
Date sample started	-	31/12/2020	31/12/2020	31/12/2020	31/12/2020			
Date sample finished	-	29/01/2021	29/01/2021	29/01/2021	29/01/2021			
Sampled By		RL	RL	RL	RL			
Number of days	-	29	29	29	29			
Notes	-	MISSING	I	1	I			
Insoluble solids	(g/m².month)	-	0.9	0.6	2.3			
Ash	(g/m².month)	-	0.6	0.3	2.0			
Combustible matter	(g/m².month)	-	0.3	0.3	0.3			

ANALYSIS	UNITS	DG3A	DG3B	DG4A	DG4B	
Depositional Dust Gauge (DDG)						
Sample Number	-	012113001a005	012113001a006	012113001a007	012113001a008	
Date sample started	-	31/12/2020	31/12/2020	31/12/2020	31/12/2020	
Date sample finished	-	29/01/2021	29/01/2021	29/01/2021	29/01/2021	
Sampled By		RL	RL	RL	RL	
Number of days	-	29	29	29	29	
Notes	-	I	I	I	I	
Insoluble solids	(g/m².month)	5.9	4.1	3.7	6.6	
Ash	(g/m ² .month)	4.9	3.2	3.0	5.6	
Combustible matter	(g/m ² .month)	1.0	0.9	0.7	1.0	

ANALYSIS	UNITS	DG5				
Depositional Dust Gauge (DDG)						
Sample Number	-	012113001a009				
Date sample started	-	27/11/2020				
Date sample finished	-	29/01/2021				
Sampled By		RL				
Number of days	-	63				
Notes	-	1				
Insoluble solids	(g/m ² .month)	1.9				
Ash	(g/m ² .month)	1.4				
Combustible matter	(g/m ² .month)	0.5				

Note DG5 does not conform with guidelines 28-32 days> **Depositional Dust Gauge (DDG)**

Analysis on samples is on an as received basis.

Depositional Dust Gauge (DDG) Qualifier Codes I = Insects (eg. Ants, spiders



Depositional Dust Gauge Quality Control

A blank crucible, containing no deposited matter, is analysed with every batch of 10 samples analysed. The acceptable mass difference between the first and second weighing of a blank crucible, at the indicated steps, in the analysis procedure is +/- 0.001g.

Blank Crucibles Analysis

METHOD STEP	PRE-DETER	RMINATION		NATION OF LE SOLIDS	DETERMINATION OF ASH AND COMBUSTIBLE MATTER				
	1 st weighing	2 nd weighing	1 st weighing	2 nd weighing	1 st weighing	2 nd weighing			
Crucible No.	Mass of Crucible(g)	Mass of Crucible(g)							
40	18.2362	18.236	18.2363	18.2362	18.2361	18.236			

Please contact the undersigned if you have any queries.

Yours sincerely

Laura Schofield Environmental Laboratory Manager Robert Carr & Associates Pty Ltd Trading as RCA Laboratories – Environmental Neena Tewari Senior Environmental Microbiologist Robert Carr & Associates Pty Ltd Trading as RCA Laboratories - Environmental



RCA Internal Quality Review

General

- Laboratory QC results for Method Blanks, Duplicates and Laboratory Control Samples are included in this QC report where applicable. Additional QC data maybe available on request.
- 2. RCA QC Acceptance / Rejection Criteria are available on request.
- 3. Proficiency Trial results are available on request.
- 4. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
- 5. When individual results are qualified in the body of a report, refer to the qualifier descriptions that follow.
- 6. Samples were analysed on an 'as received' basis.
- Sampled dates in this report are those listed on the COC or sample jars; if no sample dates are noted, the date the samples are received at the laboratory have been used.
- 8. All soil results are reported on a dry basis, unless otherwise stated. (ACID SULPHATE SOILS)
- 9. This report replaces any interim results previously issued.

Holding Times.

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample

Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

##NOTE: pH duplicates are reported as a range NOT as RPD

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR: RPD must lie between 0-30%

QC DATA GENERAL COMMENTS

- 1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- 2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
- 3. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Glossary

UNITS

mg/kg: milligrams per Kilogram

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

mg/L: milligrams per Litre

TERMS

Dry Where moisture has been determined on a solid sample the result is expressed on a dry basis.

LOR Limit of Reporting.

RPD Relative Percent Difference between two Duplicate pieces of analysis can be obtained upon request.

QCS Quality Control Sample - reported as value recovery

Method Blank In the case of solid samples these are performed on laboratory certified clean sands.

In the case of water samples these are performed on de-ionised water

Duplicate A second piece of analysis from the same sample and reported in the same units as the result to show comparison.

Batch Duplicate A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.

USEPA United States Environment Protection Authority

APHA American Public Health Association

COC Chain of Custody

CP Client Parent - QC was performed on samples pertaining to this report

NCP Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within

< indicates less than

> Indicates greater than

ND Not Detected



Ph: (02) 4902 9200 Fax: 02 4902 9299 92 Hill Street, Carrington NSW 2294 www.rca.com.au Email: labenviro@rca.com.au

ENV-F103-4

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