

JHCPB Joint Venture

Dust Deposition Monitoring Report

Reporting Period: 16th February 2021 – 15th August 2021

Project	Rozelle Interchange and WHT Enabling Works – Design and Construct
Document No.	RIC-JHC-RPT-20-EN-001-105
Revision Date	07/09/2021

Document Approval

Rev	Date	Prepared by	Reviewed by	Approved by	Remarks
00	03/09/2021	R. Posgate	C. Moriarty		Internal Review
01	07/09/2021	R. Posgate	K. Lloyd	K. Lloyd	For Issue



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1. Introduction

The purpose and scope of the Dust Deposition Monitoring Program (the Program) is to monitor the effectiveness of mitigation measures applied during the construction phase of the WestConnex Rozelle Interchange Project (the Project).

As specified in Section 5.5 of the Dust Deposition Monitoring Program (RIC-JHC-MPL-00-PL-410-002), Dust Deposition Monitoring Reports will be produced every six months. Therefore, this Report will present the findings from the Program for the reporting period of 16th February 2021 through to 15th August 2021.



2. Dust deposition monitoring

This section presents a summary of the Program. Dust is assessed as insoluble solids as defined by AS 3580.10.1-1991 AM-19 Particulates – deposited matter – gravimetric method.

2.1. Location of dust deposition gauges

Monitoring will be undertaken using dust deposition gauges located at each of the Project ancillary facilities as identified in Table 1 and shown in Figure 1. Dust gauges will be collected monthly for the duration of construction.

Table 1 Locations of dust deposition gauges

Ancillary facility	Description
Rozelle civil and tunnel site	Two (2) gauges will be installed within the Rozelle civil and tunnel site on the 'northern' / Lilyfield Roadside of the site. One gauge will be located in the eastern half of the site and one gauge in the western half of the site.
The Crescent civil site	One (1) gauge will be installed within The Crescent civil site. This gauge is also expected to capture any potential dust deposition from the 'southern' / City West Link side of the Rozelle civil and tunnel site.
Victoria Road civil site	One (1) gauge will be installed within the Victoria Road civil site.
Iron Cove Link civil site	One (1) gauge will be installed within the Iron Cove Link civil site.

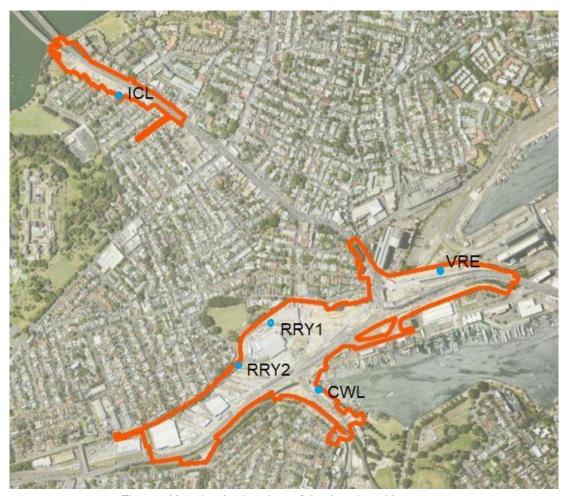


Figure 1 Map showing locations of the dust deposition gauges



2.2. Performance criteria

The adopted criterion is a measure of maximum total dust deposition levels. This is based on the long-term (annual average) EPA criterion for depositional dust specified in Table 2.

Table 2 Long-term impact assessment criterion for deposited dust

Pollutant	Averaging period	Maximum total* deposited dust level
Deposited dust	Annual	4g/m ² /month

^{*} Total impact (i.e. concentrations due to the Project plus background concentrations due to other sources)



3. Construction Update

A summary of the construction activities which took place across the Project during the reporting period, is presented in Table 3 below.

Table 3 Typical construction activities during reporting period

Location	Activities
Tunnels	 All 22 Road headers operational Entered peak production period for tunnel excavation ICL tunnel connected to the mainline tunnels ICL Tunnelling Site demobilised August 2021 Back End Works commenced across all three tunnelling sites Tunnel breakthrough to M4 cut and cover WHT excavation commenced
Victoria Road East	 Installation of drainage and stormwater networks Bulk earthworks and piling pad preparation Bored piling and sheet piling works Pillow wall demolition Victoria Road Bridge demolition Victoria Road Bridge construction Installation of groundwater dewatering systems Installation of Intelligent Transport Systems (ITS) Hornsey Street cul-de-sac cladding and landscaping Temporary and permanent retaining wall construction Victoria Road Bridge Underpass permanent power installation Temporary and permanent roadworks Cut and cover construction Bulk excavation from cut and cover structures
Iron Cove Link	 Cut and Cover works Asphalting works Pavement subgrade and pavement works Bulk excavation works and establishment of retaining walls Shared user path works Permanent road works Lighting installation Sub-station preparation Gate switches Temporary barriers and bus bay Tunnel support works for access/slip lane Commencement of landscaping activities in Block 3, 4 and KGP. Completion in Block 4 and KGP. Site Audit Report & Statement issued for KGP. HS01 and OMCS building construction commenced with basic structure now complete. Fit-out of each building has commenced. External civil work for HS01 and OMCS building Preparation and planning underway for the delivery and installation of transformers to HS01 transformer bays. Permanent power in Toelle Street – procurement and design finalised, construction works commenced and is near completion Sydney Water potable supply continued and near completion Existing Balmain Sewer decommissioning continued and is now



Location	Activities			
	Utility underboring works were completed			
	 Utilities sewer bypass and commissioning of sewer 			
	 Continued permanent restoration works for utility areas 			
	 ITS works have commenced and will indicatively continue until Q 2022. 			
	 Ausgrid package (overhead wires on Vic Road, near Drummoyne) has commenced. 			
Rozelle Rail Yard	 M4 Vent shaft excavation completed 			
	 Western Harbour Tunnel (WHT) substation excavation complete 			
	 WHT dive excavation commenced 			
	 Ventilation Facility construction underway and shaft excavation commenced 			
	 Bulk Earthworks and excavation 			
	 M5 + WHT Cut & Cover construction, roof slab installation completed 			
	 M4 cut and cover, roof slab installation commenced 			
	 Spoil load out 			
	 Utilities work 			
City West Link	 Johnston Street Stage 3A switch 			
•	 Utilities works (Ausgrid, Sydney Trains, Jemena, Sydney Water) 			
	■ ITS & TCS works			
	 Drainage works 			
	 Bulk earthworks – including works in Rozelle Bay & Whites Creek duplication 			
	 Piling works 			
	 Abutments, capping beams and piers for bridge scope 			
	 Installation of girders for Whites Creek Bridge & Green Bridge 			
	 Demolition works 			
	 Temporary and permanent pavement works 			
	 Remediation and landscaping works 			



4. Dust deposition gauge results

Dust deposition gauge results are presented below in Table 4. The raw dust monitoring results include all insoluble matter. Analysis and further discussion on the types of insoluble matter, application of reasonable and feasible mitigation measures and management responses is provided in Section 5, below.

Laboratory certificates are provided in Annexure A.

Table 4 Dust deposition gauge results table

Monitoring Period	Location	Total Insoluble Matter (g/m²/mth)
	RRY1	3.6
	RRY2	1.1
February 21 – March 21	ICL	0.6
	CWL	0.9
	VRE	4.1
	RRY1	2.0
	RRY2	1.2
March 21 – April 21	ICL	0.4
	CWL	1.9
	VRE	2.1
	RRY1	1.2
	RRY2	1.8
April 21 – May 21	ICL	0.8
	CWL	1.9
	VRE	2.0
	RRY1	1.0
	RRY2	1.7
May 21 – June 21	ICL	0.6
	CWL	1.9
	VRE	0.8
	RRY1	0.6
	RRY2	2.8
June 21 – July 21	ICL	0.4
	CWL	2.4
	VRE	0.8
	RRY1	0.7
	RRY2	1.1
July 21 – August 21	ICL	0.4
	CWL	0.8
	VRE	1.5



5. Data analysis and management responses

Results from the construction monitoring program have been compared with the criterion identified in Table 2.

5.1. Exceedance of the criterion

Table 5 provides commentary for the exceedance during the monitoring period.

Table 5 Comments on exceedances

Monitoring Period and Notable Weather Observations	Location	Total Insoluble Matter (g/m²/mth)	Mitigation measures implemented during the monitoring period
			No Project related activities with the potential for generating dust were occurring in the area during this period.
08/02/2021 – 08/03/2021	VRE	4.1	Construction activities involving excavation and road construction, unrelated to the Project, were occurring during this period in the nearby vicinity of the monitoring location.
			Minor exceedance was attributed to external sources beyond the Project's control.
			Monitoring location is approximately 205m to nearest residential receiver.

Table 6 provides a comparison of the total insoluble matter, ash content and combustible material. This indicates the amount of dust versus ash content versus combustible material which is not being monitored for this project. Ash content is generally used for mine sites, particularly coal.

Total insoluble material is comprised of ash content and combustible organic material i.e. organic material, leaves, pollen, and bugs. Combustible content is not the best analyte to use as dust is not combustible therefore combustible should not be included in the total residual.

Table 6 Comparison of Total Insoluble Matter, Ash Content and Combustible Material

Monitoring Period	Location	Total Insoluble Matter (TIM) (g/m²/mth)	Ash Content (g/m²/mth)	Combustible Material (annual av. g/m²/mth)	Total residual (TIM – Combustible Material)
	RRY1	3.6	3.3	0.3	3.3
	RRY2	1.1	1.0	0.1	1.0
February 21 – March 21	ICL	0.6	0.5	0.1	0.5
	CWL	0.9	0.7	0.2	0.7
	VRE	4.1	3.6	0.5	3.6
	RRY1	2	1.8	0.2	1.8
	RRY2	1.2	0.9	0.3	0.9
March 21 – April 21	ICL	0.4	0.3	0.1	0.3
	CWL	1.9	1.8	0.1	1.8
	VRE	2.1	1.8	0.3	1.8

Rozelle Interchange

	RRY1	1.2	1.0	0.2	1.0
	RRY2	1.8	1.3	0.5	1.3
April 21 – May 21	ICL	0.8	0.5	0.3	0.5
	CWL	1.9	1.4	0.5	1.4
	VRE	2.0	1.6	0.4	1.6
	RRY1	1	0.9	0.1	0.9
	RRY2	1.7	1.6	0.1	1.6
May 21 – June 21	ICL	0.6	0.4	0.2	0.4
	CWL	1.9	1.6	0.3	1.3
	VRE	0.8	0.8	<0.1	0.8
	RRY1	0.6	0.5	0.1	0.5
	RRY2	2.8	2.5	0.3	0.3
June 21 – July 21	ICL	0.4	0.3	0.1	0.3
	CWL	2.4	1.7	0.7	1.7
	VRE	0.8	0.5	0.3	0.5
July 21 – August 21	RRY1	0.7	0.5	0.2	0.5
	RRY2	1.1	0.9	0.2	0.9
	ICL	0.4	0.3	0.1	0.1
	CWL	1	0.8	0.2	0.8
	VRE	0.8	0.7	0.1	0.7
	•				

Over the 12-month period from August 2020 to August 2021, Figures 2-6 show that the rolling annual average at all monitoring locations for the total residual material was below the long-term (annual average) EPA criterion for depositional dust of $4g/m^2/m$ onth at the end of the reporting period and therefore compliant.

For further detail from the past reporting period shown in the Figures 2 - 6 below, refer to RIC-JHC-RPT-20-EN-001-073 Dust Deposition Monitoring Report 16th August 2020 –15th February 2021.

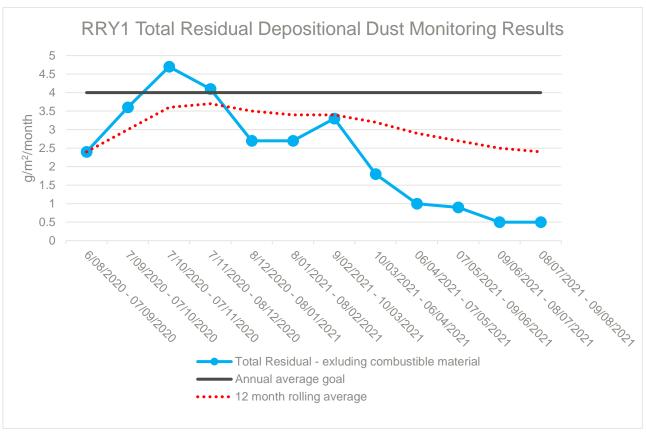


Figure 2 RRY1 Total residual depositional dust annual average

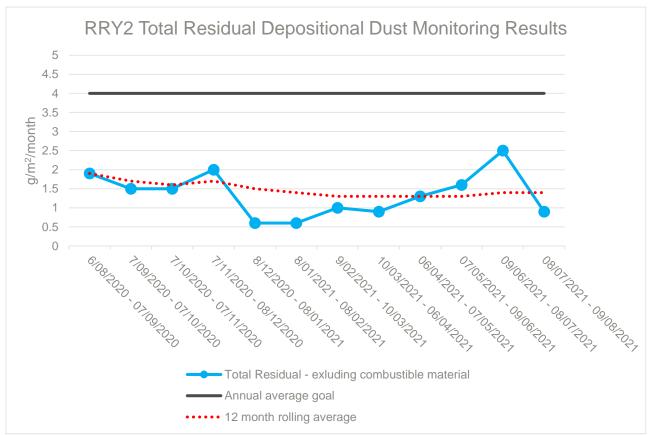


Figure 2 RRY2 Total residual depositional dust annual average

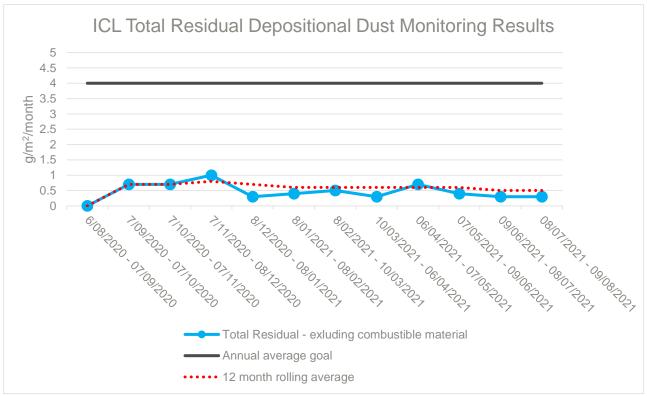


Figure 3 ICL Total residual depositional dust annual average

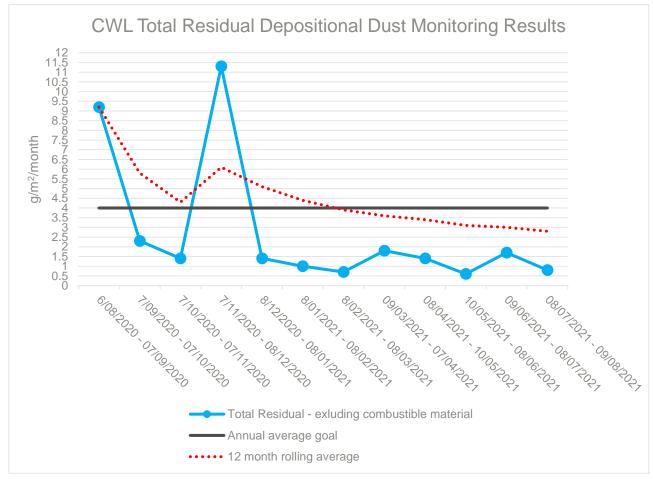


Figure 4 CWL Total residual depositional dust annual average

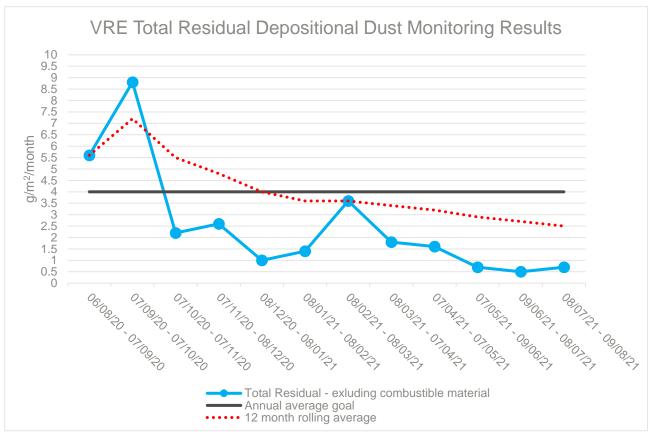


Figure 5 VRE Total residual depositional dust annual average



5.2. Management Response

There were no exceedances of the performance criteria in this reporting period.

Where high winds were experienced, ongoing mitigation measures for the Project included:

- Additional water carts and access points to water,
- Continuous use of street sweepers across the sites,
- Wetting systems (hoses, gurneys, sprinklers, water misters on excavator rock hammer attachments and misters) for specific tasks e.g. rock hammering with misters.
- The use of polymer binding agent,
- Progressive stabilisation (concrete hardstand) and completion of earthworks and excavation of M5 Cut and Cover and WHT Cut and Cover, The Crescent & City West Link pavement works and Iron Cove Link westbound lanes;
- Progressive permanent landscaping and finishing works including the Iron Cove Link pocket parks and shared user path adjacent to the new Victoria Road westbound alignment and King George Park and The Crescent/Chapman Road landscaping and shared user path and Hornsey Street cul-de-sac and shared user path and ramp; and
- Pausing of works or dust generating activities (e.g. lime application to PASS, demolition) when conditions were forecast to have high wind speeds.

5.3. Incidents related to air quality

No incidents relating to air quality were recorded during this reporting period. The Project continues to have a strong commitment to compliance and minimising community impact.

6. Updates and amendments to the d No updates or amendments to the dust deposition program	

Annexure A – Laboratory Certificates



Work Order : **EN2101942**

: John Holland & CPB Contractors JV - Rozelle Interchange

Contact : Lawson Gill

Address : 68-72 Lilyfield Road

Rozelle 2039

Telephone : ---

Client

Project : WestConnex 3B

Order number : ---C-O-C number : ----

Sampler · Lawson Gill

Site : ---

Quote number : SY/512/19 V8

No. of samples received : 4
No. of samples analysed : 4

Page : 1 of 2

Laboratory : Environmental Division Newcastle

Contact : Shane Ellis

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 8784 8555

Date Samples Received : 11-Mar-2021 17:00

Date Analysis Commenced : 12-Mar-2021

Date Analysis Commenced : 12-Mar-2021
Issue Date : 22-Mar-2021 15:45



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories Position Accreditation Category

Zoran Grozdanovski Laboratory Operator Newcastle - Inorganics, Mayfield West, NSW

Page : 2 of 2 Work Order : EN2101942

Client : John Holland & CPB Contractors JV - Rozelle Interchange

Project : WestConnex 3B

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.

Sub-Matrix: DEPOSITIONAL DUST (Matrix: AIR)			Sample ID	WCX3B-RIC-RRY1 09/02/21 - 10/03/21	WCX3B-RIC-RRY2 09/02/21 - 10/03/21	WCX3B-RIC-VRE1 08/02/21 - 08/03/21	JHCPB-RIC CWL 08/02/21 - 08/03/21	
		Sampli	ng date / time	10-Mar-2021 00:00	10-Mar-2021 00:00	08-Mar-2021 00:00	08-Mar-2021 00:00	
Compound	CAS Number	LOR	Unit	EN2101942-001	EN2101942-002	EN2101942-003	EN2101942-004	
				Result	Result	Result	Result	
EA120: Ash Content								
Ash Content		0.1	g/m².month	3.3	1.0	3.6	0.7	
Ash Content (mg)		1	mg	56	17	59	12	
EA125: Combustible Matter								
Combustible Matter		0.1	g/m².month	0.3	0.1	0.5	0.2	
Combustible Matter (mg)		1	mg	5	2	8	3	
EA139: Total Soluble Matter								
Total Soluble Matter		0.1	g/m².month	2.6	1.4	2.5	0.3	
Total Soluble Matter (mg)		1	mg	44	24	41	6	
EA141: Total Insoluble Matter								
Total Insoluble Matter		0.1	g/m².month	3.6	1.1	4.1	0.9	
Total Insoluble Matter (mg)		1	mg	61	19	67	15	
EA142: Total Solids								
Total Solids		0.1	g/m².month	6.2	2.5	6.6	1.2	
Total Solids (mg)		1	mg	105	43	108	21	





Work Order : EN2102074

: JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE

INTERCHANGE

Contact : Julian Paul

Address : 68-72 Lilyfield Road

Rozelle 2039

Telephone : ----

Client

Project : WestConnex 3B

Order number : ---C-O-C number : ----

Sampler : Julian Paul

Site : ---

Quote number : SY/512/19 V8

No. of samples received : 1
No. of samples analysed : 1

Page : 1 of 2

Laboratory : Environmental Division Newcastle

Contact : Shane Ellis

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 8784 8555

Date Samples Received : 16-Mar-2021 17:00

Date Analysis Commenced : 19-Mar-2021

Issue Date : 26-Mar-2021 12:45



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Signatories

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Signatories Position Accreditation Category

Zoran Grozdanovski Laboratory Operator Newcastle - Inorganics, Mayfield West, NSW

Page : 2 of 2 Work Order : EN2102074

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE INTERCHANGE

Project : WestConnex 3B

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

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Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

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- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.

Sub-Matrix: DEPOSITIONAL DUST (Matrix: AIR)			Sample ID	WCX3B-RIC-ICL 08/02/21 - 10/03/21	 	
		Sampli	ing date / time	10-Mar-2021 00:00	 	
Compound	CAS Number	LOR	Unit	EN2102074-001	 	
				Result	 	
EA120: Ash Content						
Ash Content		0.1	g/m².month	0.5	 	
Ash Content (mg)		1	mg	8	 	
EA125: Combustible Matter						
Combustible Matter		0.1	g/m².month	0.1	 	
Combustible Matter (mg)		1	mg	2	 	
EA139: Total Soluble Matter						
Total Soluble Matter		0.1	g/m².month	1.8	 	
Total Soluble Matter (mg)		1	mg	32	 	
EA141: Total Insoluble Matter						
Total Insoluble Matter		0.1	g/m².month	0.6	 	
Total Insoluble Matter (mg)		1	mg	10	 	
EA142: Total Solids						
Total Solids		0.1	g/m².month	2.4	 	
Total Solids (mg)		1	mg	42	 	





Work Order : EN2102991

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE

INTERCHANGE

Contact : Julian Paul

Address : 68-72 Lilyfield Road

Rozelle 2039

Telephone : ----

Project : WestConnex 3B

Order number : ---C-O-C number : ----

Sampler : Julian Paul

Site : ----

Quote number : SY/512/19 V8

No. of samples received : 4
No. of samples analysed : 4

Page : 1 of 2

Laboratory : Environmental Division Newcastle

Contact : Shane Ellis

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 8784 8555

Date Samples Received : 13-Apr-2021 17:00

Date Analysis Commenced : 16-Apr-2021

Issue Date : 23-Apr-2021 15:55



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- Analytical Results

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Signatories Position Accreditation Category

Zoran Grozdanovski Laboratory Operator Newcastle - Inorganics, Mayfield West, NSW

Page : 2 of 2 Work Order : EN2102991

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE INTERCHANGE

Project : WestConnex 3B

General Comments

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Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- Sample exposure period for 002-004 is 27 days which is outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1.

,			Sample ID	WCX3B-RIC-VRE01	WCX3B-RIC-ICL	WCX3B-RIC-RRY2		
(Matrix: AIR)				08/03/21 - 07/04/21	10/03/21 - 06/04/21	10/03/21 - 06/04/21	10/03/21 - 06/04/21	
		Sampli	ng date / time	07-Apr-2021 00:00	06-Apr-2021 00:00	06-Apr-2021 00:00	06-Apr-2021 00:00	
Compound	CAS Number	LOR	Unit	EN2102991-001	EN2102991-002	EN2102991-003	EN2102991-004	
				Result	Result	Result	Result	
EA120: Ash Content								
Ash Content		0.1	g/m².month	1.8	0.3	1.8	0.9	
Ash Content (mg)		1	mg	31	4	28	15	
EA125: Combustible Matter								
Combustible Matter		0.1	g/m².month	0.3	0.1	0.2	0.3	
Combustible Matter (mg)		1	mg	6	2	4	4	
EA139: Total Soluble Matter								
Total Soluble Matter		0.1	g/m².month	2.3	0.2	0.8	<0.1	
Total Soluble Matter (mg)		1	mg	41	3	13	<1	
EA141: Total Insoluble Matter								
Total Insoluble Matter		0.1	g/m².month	2.1	0.4	2.0	1.2	
Total Insoluble Matter (mg)		1	mg	37	6	32	19	
EA142: Total Solids								
Total Solids		0.1	g/m².month	4.4	0.6	2.8	1.2	
Total Solids (mg)		1	mg	78	9	45	19	





Work Order : EN2103087 Page : 1 of 2

Date Samples Received

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE Laboratory : Environmental Division Newcastle

INTERCHANGE

Contact : ROGER POSGATE Contact : Shane Ellis

Address : 68-72 Lilyfield Road Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

: 19-Apr-2021 07:30

Rozelle 2039

Telephone : +61 2 8784 8555

Project : WestConnex 3B Order number

Date Analysis Commenced : 20-Apr-2021

C-O-C number

Telephone

Quote number

Issue Date

Sampler : ROGER POSGATE

Site

: EN/222

No. of samples received : 1 No. of samples analysed : 1 : 28-Apr-2021 10:42

ISO/IEC 17025 - Testing

Accredited for compliance with

Accreditation No. 825

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with **Quality Review and Sample Receipt Notification.**

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories Position Accreditation Category

Zoran Grozdanovski Laboratory Operator Newcastle - Inorganics, Mayfield West, NSW Page : 2 of 2 Work Order : EN2103087

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE INTERCHANGE

Project : WestConnex 3B



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.

Sub-Matrix: DEPOSITIONAL DUST (Matrix: AIR)			Sample ID	JHCPB - RIC-CWL 09/03/2021 - 07/04/2021	 	
		Sampl	ing date / time	07-Apr-2021 00:00	 	
Compound	CAS Number	LOR	Unit	EN2103087-001	 	
				Result	 	
EA120: Ash Content						
Ash Content		0.1	g/m².month	1.8	 	
Ash Content (mg)		1	mg	31	 	
EA125: Combustible Matter						
Combustible Matter		0.1	g/m².month	0.1	 	
Combustible Matter (mg)		1	mg	1	 	
EA139: Total Soluble Matter						
Total Soluble Matter		0.1	g/m².month	1.6	 	
Total Soluble Matter (mg)		1	mg	28	 	
EA141: Total Insoluble Matter						
Total Insoluble Matter		0.1	g/m².month	1.9	 	
Total Insoluble Matter (mg)		1	mg	32	 	
EA142: Total Solids						
Total Solids		0.1	g/m².month	3.5	 	
Total Solids (mg)		1	mg	60	 	



Work Order : EN2103937

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE

INTERCHANGE

Contact : Julian Paul

Address : 68-72 Lilyfield Road

Rozelle 2039

Telephone : ----

Project : WestConnex 3B

Sampler : Julian Paul

Site : ---

Quote number : SY/512/19 V15

No. of samples received : 5
No. of samples analysed : 5

Page : 1 of 2

Laboratory : Environmental Division Newcastle

Contact : Shane Ellis

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 8784 8555

Date Samples Received : 11-May-2021 17:00

Date Analysis Commenced : 13-May-2021

Issue Date : 21-May-2021 11:02



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

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- Analytical Results

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Signatories

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Signatories Position Accreditation Category

Zoran Grozdanovski Laboratory Operator Newcastle - Inorganics, Mayfield West, NSW

Page : 2 of 2 Work Order : EN2103937

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE INTERCHANGE

Project : WestConnex 3B



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- No copper sulfate correction was applied to samples #001 and 002.

Sub-Matrix: DEPOSITIONAL DUST			Sample ID	WCX3B-RIC-RRY1	WCX3B-RIC-VRE01	WCX3B-RIC-ICL	WCX3B-RIC-CWL	WCX3B-RIC-RRY2
(Matrix: AIR)				06/04/21 - 07/05/21	07/04/21 - 07/05/21	06/04/21 - 07/05/21	08/04/21 - 10/05/21	06/04/21 - 07/05/21
		Sampli	ing date / time	07-May-2021 00:00	07-May-2021 00:00	07-May-2021 00:00	10-May-2021 00:00	07-May-2021 00:00
Compound	CAS Number	LOR	Unit	EN2103937-001	EN2103937-002	EN2103937-003	EN2103937-004	EN2103937-005
				Result	Result	Result	Result	Result
EA120: Ash Content								
Ash Content		0.1	g/m².month	1.0	1.6	0.5	1.4	1.3
Ash Content (mg)		1	mg	19	28	10	27	24
EA125: Combustible Matter								
Combustible Matter		0.1	g/m².month	0.2	0.4	0.3	0.5	0.5
Combustible Matter (mg)		1	mg	3	8	5	9	8
EA139: Total Soluble Matter								
Total Soluble Matter		0.1	g/m².month	2.1	2.7	<0.1	<0.1	0.6
Total Soluble Matter (mg)		1	mg	39	48	<1	<1	11
EA141: Total Insoluble Matter								
Total Insoluble Matter		0.1	g/m².month	1.2	2.0	0.8	1.9	1.8
Total Insoluble Matter (mg)		1	mg	22	36	15	36	32
EA142: Total Solids								
Total Solids		0.1	g/m².month	3.3	4.7	0.8	1.9	2.4
Total Solids (mg)		1	mg	61	84	15	36	43



Work Order : EN2105028

: JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE

INTERCHANGE

Contact : ROGER POSGATE

Address : 68-72 Lilyfield Road

Rozelle 2039

Telephone

Client

Project : WestConnex 3B Order number · RIC-0065A-PWD

C-O-C number

Sampler : Sven Carlson

Site

Quote number : SY/512/19 V15

No. of samples received : 5 No. of samples analysed : 5 Page : 1 of 2

> Laboratory : Environmental Division Newcastle

Contact : Christopher Redford

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 8784 8555

Date Samples Received : 10-Jun-2021 17:00

Date Analysis Commenced : 15-Jun-2021

Issue Date : 21-Jun-2021 17:39



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full

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Signatories

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Signatories Position Accreditation Category

Zoran Grozdanovski Laboratory Operator Newcastle - Inorganics, Mayfield West, NSW Page : 2 of 2 Work Order : EN2105028

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE INTERCHANGE

Project : WestConnex 3B



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

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LOR = Limit of reporting

- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- Sample exposure period for 001-003 and 005 is 33 days which is outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1.

Sub-Matrix: DEPOSITIONAL DUST (Matrix: AIR)			RRY1 07/05/21 - 09/06/21	RRY2 07/05/21 - 09/06/21	VRE01 07/05/21 - 09/06/21	RIC/CWL 10/05/21 - 08/06/21	ICL 07/05/21 - 09/06/21	
		Sampli	ing date / time	09-Jun-2021 00:00	09-Jun-2021 00:00	09-Jun-2021 00:00	08-Jun-2021 00:00	09-Jun-2021 00:00
Compound	CAS Number	LOR	Unit	EN2105028-001	EN2105028-002	EN2105028-003	EN2105028-004	EN2105028-005
				Result	Result	Result	Result	Result
EA120: Ash Content								
Ash Content		0.1	g/m².month	0.9	1.6	0.8	1.6	0.4
Ash Content (mg)		1	mg	17	31	15	27	8
EA125: Combustible Matter								
Combustible Matter		0.1	g/m².month	0.1	0.1	<0.1	0.3	0.2
Combustible Matter (mg)		1	mg	3	3	1	5	3
EA139: Total Soluble Matter								
Total Soluble Matter		0.1	g/m².month	0.3	0.1	<0.1	0.3	0.5
Total Soluble Matter (mg)		1	mg	6	1	<1	5	10
EA141: Total Insoluble Matter								
Total Insoluble Matter		0.1	g/m².month	1.0	1.7	0.8	1.9	0.6
Total Insoluble Matter (mg)		1	mg	20	34	16	32	11
EA142: Total Solids								
Total Solids		0.1	g/m².month	1.3	1.8	0.8	2.2	1.1
Total Solids (mg)		1	mg	26	35	16	37	21



Work Order : **EN2106106**

JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE

INTERCHANGE

Contact : Lawson Gill

Address : 68-72 Lilyfield Road

Rozelle 2039

Telephone : ----

Client

Project : WestConnex 3B
Order number : RIC-0065A-PWD

C-O-C number · ----

Sampler : Lawson Gill

Site : ----

Quote number : SY/512/19 V17

No. of samples received : 5
No. of samples analysed : 5

Page : 1 of 3

Laboratory : Environmental Division Newcastle

Contact : Christopher Redford

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 8784 8555

Date Samples Received : 14-Jul-2021 17:00

Date Analysis Commenced : 15-Jul-2021

Issue Date : 26-Jul-2021 15:35



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

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Signatories

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Signatories Position Accreditation Category

Zoran Grozdanovski Laboratory Operator Newcastle - Inorganics, Mayfield West, NSW

Page : 2 of 3 Work Order : EN2106106

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE INTERCHANGE

Project : WestConnex 3B

ALS

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

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- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- No copper sulfate correction was applied to sample #003.
- Date Range: 09/06/21 08/07/21

Sub-Matrix: DEPOSITIONAL DUST (Matrix: AIR)			Sample ID	ICL JHCPB	RRY2 WCX3B	RRY1 WCX3B	RIC-CWL JHCPB	VRE1 WCX3B
		Sampli	ing date / time	08-Jul-2021 00:00				
Compound	CAS Number	LOR	Unit	EN2106106-001	EN2106106-002	EN2106106-003	EN2106106-004	EN2106106-005
				Result	Result	Result	Result	Result
EA120: Ash Content								
Ash Content		0.1	g/m².month	0.3	2.5	0.5	1.7	0.5
Ash Content (mg)		1	mg	5	42	8	29	9
EA125: Combustible Matter								
Combustible Matter		0.1	g/m².month	0.1	0.3	0.1	0.7	0.3
Combustible Matter (mg)		1	mg	2	6	3	12	5
EA139: Total Soluble Matter								
Total Soluble Matter		0.1	g/m².month	0.1	1.3	2.7	0.7	0.9
Total Soluble Matter (mg)		1	mg	2	22	46	11	15
EA141: Total Insoluble Matter								
Total Insoluble Matter		0.1	g/m².month	0.4	2.8	0.6	2.4	0.8
Total Insoluble Matter (mg)		1	mg	7	48	11	41	14
EA142: Total Solids								
Total Solids		0.1	g/m².month	0.5	4.1	3.3	3.1	1.7
Total Solids (mg)		1	mg	9	70	57	52	29

Page : 3 of 3
Work Order : EN2106106

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE INTERCHANGE

Project : WestConnex 3B





Work Order : EN2107046 Page : 1 of 2

Date Analysis Commenced

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE Laboratory : Environmental Division Newcastle

INTERCHANGE

Contact : CIARA MORIARTY Contact : Christopher Redford

Address : 68-72 Lilyfield Road Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Accreditation No. 825

Accredited for compliance with ISO/IEC 17025 - Testing

Rozelle 2039

Telephone

Telephone : +61 2 8784 8555

Project : WestConnex 3B Order number · RIC-0065A-PWD **Date Samples Received** : 11-Aug-2021 17:00

C-O-C number

: 12-Aug-2021 Issue Date : 23-Aug-2021 09:44

Sampler

: CIARA MORIARTY

Site

Quote number : SY/512/19 V17

No. of samples received : 5 No. of samples analysed : 5

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full

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- General Comments
- Analytical Results

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Signatories

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Signatories Position Accreditation Category

Zoran Grozdanovski Laboratory Operator Newcastle - Inorganics, Mayfield West, NSW Page : 2 of 2 Work Order : EN2107046

Client : JOHN HOLLAND & CPB CONTRACTORS JV - ROZELLE INTERCHANGE

Project : WestConnex 3B



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

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- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- No copper sulfate correction was applied to sample #003.

Sub-Matrix: DEPOSITIONAL DUST			Sample ID	RRY1 - WCX3B	RRY2 - WCX3B	VRE1 - WCX3B	CWL - WCX3B	ICL 1 - WCX3B
(Matrix: AIR)				08/07/21 - 09/08/21	08/07/21 - 09/08/21	08/07/21 - 09/08/21	08/07/21 - 09/08/21	08/07/21 - 09/08/21
		Sampli	ing date / time	09-Aug-2021 00:00				
Compound	CAS Number	LOR	Unit	EN2107046-001	EN2107046-002	EN2107046-003	EN2107046-004	EN2107046-005
				Result	Result	Result	Result	Result
EA120: Ash Content								
Ash Content		0.1	g/m².month	0.5	0.9	0.7	0.8	0.3
Ash Content (mg)		1	mg	10	17	13	15	6
EA125: Combustible Matter								
Combustible Matter		0.1	g/m².month	0.2	0.2	0.1	0.2	0.1
Combustible Matter (mg)		1	mg	4	4	2	4	2
EA139: Total Soluble Matter								
Total Soluble Matter		0.1	g/m².month	1.7	<0.1	1.1	<0.1	0.1
Total Soluble Matter (mg)		1	mg	33	<1	21	<1	2
EA141: Total Insoluble Matter								
Total Insoluble Matter		0.1	g/m².month	0.7	1.1	0.8	1.0	0.4
Total Insoluble Matter (mg)		1	mg	14	21	15	19	8
EA142: Total Solids								
Total Solids		0.1	g/m².month	2.4	1.1	1.9	1.0	0.5
Total Solids (mg)		1	mg	47	21	36	19	10

ALS Laboratory: please tick →

□ADELAIDE 3/1 Burma Road Pooraka SA 5095 Ph; 08 8162 5130 E; adelaide@alsglobal.com

©BRISBANE 2 Byth Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com

□GLADSTONE 48 Callemondah Drive Gladstone QLD 4680 Pb. 07 4978 7944 F: gladstone@alsotobal.com

Ph: 07 4944 0177 E: mackay@aisglobai.com

DMELBOURNE 2-4 Westall Road Springvate VIC 3171 Ph: 03 8549 9600 E: samples melbourne@alsolobal.com

□MUDGEE 1/29 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com

Ph: 02 4014 2500 E: samples newcastle@alsolobal.com

□PERTH 10 Hod Way Mataga WA 6090 Ph: 08 9209 7655 F: samples perth@atsglobal.com

DNOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com

QNEWCASTLE 5/585 Maitland Road Mayfield West NSW 2304 QSYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E. samples sydney@alsolobal.com

©TOWNSVILLE 14-15 Desma Court Boble QLD 4818 Ph: 07 4796 0600 € townsville environmenta@alsglobal.com

"IWOLLONGONG 1/19-21 Ralph Black Drive, Nth Wollongong NSW 2508 Ph: 02 4225 3125 E. wollongong@alsglobal.com

CLIENT: JHCPB Contr	actors JV - Rozelle Interchange	OUND REQUIREMENTS :	X Standar	d TAT (List o	lue date):					FO	R LABORAT	ORY USE O	NLY (Circle)				
OFFICE: 66-68 Lilyfield	Rd, Security Hut	****		AT may be longer for some tests race Organics)	☐ Non S	tandard or ur	gent TAT (List o	due da	ate):			Cus	tody Seal Intac	1?	Yes	No	N/A
PROJECT: WestConne	ex 3B	PROJECT NO.:	ALS QUO						COC SEQ	JENCE NUM	BER (Circle)		e ice / frozen ice eipt?	e bricks preser	t upon Yes	No	N/
ORDER NUMBER:	PURCHA	ASE ORDER NO.:	COUNTRY	Y OF ORIGIN: AUSTRALIA				c	oc: 1 2	3 4	5 6		dom Sample T	emperature on	Receipt:	·c	
PROJECT MANAGER:	Lawson Gill	CONTACT F	PH: 0449948	8636				□ (OF: (1) 2	3 4	5 6	7 Oth	er comment:				
SAMPLER: Lawson Gi	ll	SAMPLER N	MOBILE: 04	49948636	RELINQUI	SHED BY: L	awson Gill	R	ECEIVED BY	1			JISHED BY:		RECEIVED B	Y:	
COC Emailed to ALS?		EDD FORM	AT (or defa	ult):					1081	W.		. 2	USTW		a		Эи. А
Email Reports to (will o	lefault to PM if no other addresses ar Chetan.Jayaram@rozelleinterc		ozellechano	qe.com.au	DATE/TIME	E: 10/03/202	1 13:00	D ₂	ATEITIME:			DATE/TIM	101.		DATE/TIME:	્ ગ્ર	7m
Email Invoice to (will de	efault to PM if no other addresses are								0(5/4	5 p	الم	l (C	1311	Ser	11.5-	21	
COMMENTS/SPECIAL	HANDLING/STORAGE OR DISPOS	SAL:												7			
ALCUST ONLY	SAMP	LE DETAILS		CONTAINER INF	OPMATION		ANALYSIS	REQ	UIRED includ	ing SUITES	(NB. Suite Co	des must be	listed to attract	suite price)	Additional	Informatio	on .
ALS USE ONLY	MATRIX: S	Solid(S) Water(W)		CONTAINER	ONMATION				required, specify T	otal (unfiltered l	bottle required) o	r Dissolved (fi	eid filtered bottle i	required),			
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVA' (refer to codes belo		TOTAL BOTTLES	Standard Dust Analysis A01								Comments on likely co dilutions, or samples re analysis etc.		
RRY1	WCX3B-RIC	09/02/2021 - 10/03/2021	w	CuSO₄ solution		1	х										
RRY2	WCX3B-RIC	09/02/2021 - 10/03/2021	w	CuSO₄ solution		1	х										
VRE1	ЈНСРВ	08/02/2021 - 08/03/2021	w	CuSO ₄ solution		1	Х										
RIC CWL	ЈНСРВ	08/02/2021 - 08/03/2021	w	CuSO₄ solution		1	x								<u></u>		
													nvironme	antal Div	vision		
												Er N	ewcastle Work Or EN	e rder Refer 2101			20.2
														one: +61 2	4014 2500		
Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Su						4 ydroxide Prese	erved Plastic; AG	6 = Amt	per Glass Unpres	erved; AP - A	Irfreight Unpre	served Plasti	ic .			ace:	



ALS Laboratory: please tick >

□ADELAIDE 3/1 Burma Road Propraka SA 5090 Phi 08 3162 5130 Eliadelaide@aisglobal.com

QBRISBANE 2 Byth Street Stafford Q_D 4063 Ph 07 3243 7222 S samples brisbene@alsolobat. 211

GIGN ADSTONE 48 Callemondar Dave Cladesone QLD 4060

LIMACKAY 78 Harbour Boad Mankay DEE 1740 Ph. 07 4944 0177 E. mackay Dalsglobal.com

DMELBOURNE 2.4 Westall Road Soringwate viiC 3171 Ph. 03 8549 9600 E. samples melbourne@alsglobal.com DMUDGEE 1/26 St daes Road Mudgee hrs./V 2950 En 32 6370 8733 C multiple mail@alsolprol.com

Ph 02 4423 2063 E nowa@alsplobal con □PERTH 10 Hod Way Malaga - 2/4 6/14/ Phi 00 9009 7565 £ isamples to thights through

CINICIAIRA 4/13 Geary Place from 125-5ts USW 2541

DIREVIOASTLE 5/595 Maxiand Road Maxield West NSW 2304 DSN 2/66 Ph 07 4014 2500 El samples nevosetle Stallsglobal com Ph 02 371 : 国Shome,277-289 Woodbark Koad Smithheld NSW。 - Ph. 30 3734 8555 Elisamples sydne. @alsolobal.com

DTC/ARISVILLE 14-15 Desma Cours Boble QLD 4818
On C7 LT08 0300 S. toursable sourcements & Selection

- ZWGGEL01760463 171942 Paigh Birck Drive. Nth Wallonyong LISW 2500 pg 1 utj. 5 1 125 € uvillang ma@alaglobal com

	= 111111111111111111111111111111111111	311, 101, 42	231 T Q1 25 E 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1					
		gladetone@alsglobal.com	Y James Joseph		FOR LABORATORY USE ONLY (C	Sircle)		
CLIENT: JHCPB Contractors JV - Rozelle Inte	erchange	TURNAROUND REQUIREMENTS:	X Standard TAT (List due date):		Custody Seal Intact?	Yes	No	N/A
OFFICE: 66-68 Lilyfield Rd, Security Hut		(Standard TAT may be longer for some tests	□ Non Standard or urgent TAT (List due		Free ice / frozen ice bricks present upon			- 1
PROJECT: WestConnex 3B	PROJECT NO.:	ALS QUOTE NO.:		COC SEQUENCE NUMBER (Circle)	receipt?	Yes	N ₀	N/A
ORDER NUMBER:	PURCHASE ORDER NO.:	COUNTRY OF ORIGIN: AUSTRALIA		COC: 1 2 3 4 5 6	7 Random Sample Temperature on Receipt:		*C	1
PROJECT MANAGER: Julian Paul	CONTAC	CT PH: 0409 195 132		OF: 1 2 3 4 5 6	7 Other comment:			
SAMPLER: Julian Paul	SAMPLE	ER MOBILE: 0409 195 132	RELINQUISHED BY: Julian Paul	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:		
COC Emailed to ALS? (YES / NO)	EDD FO	RMAT (or defauit):		Vishal	Visha)	MM	Spr	~
Email Reports to (will default to PM if no other	addresses are listed): Chetan Javaramo	@rozelleinterchange.com.au;	DATE/TIME: 15/03/2021 13:00	DATE/TIME:		DATE/TIME:	20	
Julian.Paul@rozelleinterchange.com.au			- ∤	18/03/2021 0300	16 03 7.21 0300	1603	12)	
Email Invoice to (will default to PM if no other a	iddresses are listed): Chetan.Jayaram@	grozelleinterchange.com.au		10 (0	101-21-	-1 -1	 	

ALS USE ONLY		LE DETAILS Solid(S) Water(W)		CONTAINER INFORMATIO	N	l		ncluding SUITE					Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	Standard Dust Analysis A01							Comments on likely contaminant levels, dilutions, or samples requiring specific (analysis etc.
ICL	WCX3B-RIC-ICL	08/02/2021 - 10/03/2021	w	CuSO₄ solution	1	х							
	<u> </u>											Newo	onmental Division eastle rk Order Reference N2102074
											_		
										 	1	Telephon	e: +61 2 4014 2500
							<u> </u> 	<u>.</u>	- <u> </u>				
									_	+			
				тот	AL 4			-		#/			
→ pa	oreserved Plastic; N = Nitric Preserved Plastic; N = Nitric Preser	erved Plastic; ORC = Nitric Preserve served; VS = VOA Vial Sulfuric Prese	d ORC; SH = S	TOT/ colium Hydroxide/Cd Preserved; S = Sodium eight Unpreserved Vial SG = Sulfuric Preserv Soils; B = Unpreserved Bag; LI = Lugols lodin	Hydroxide Pres	erved Plastic; AG s. H = HCl prese	= Amber Glass erved Plastic; H	Unpreserved; AP . S = HCl preserved :	Airfreight Unpr Speciation bott	Served Plastic		Land Market	** Preserved Glass:



ALS Laboratory: please tick →

□ADELAIDE 3/1 Burma Road Pooraka SA 5095 Ph; 08 8162 5130 E; adelaide@alsolobal.com

□BRISBANE 2 Byth Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com

□GLADSTONE 48 Catlemondah Drive Gladstone QLD 4680 Ph: 07 4978 7944 E: gladstone@alsglobal.com

DMACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com

DMFLBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples melbourne@alsolobal.com

□MUDGEE 1/29 Sydney Road Mudgee NSW 2850 Ph; 02 6372 6735 E; mudgee mail@alsdlobal.com

UNEWCASTLE 5/585 Maitland Road Mayfield West NSW 2304 USYDNEY 277-289 Woodpark Road Smithfield NSW 2164
Ph: 02 4014 2500 E: samples.newcastle@alsdobal.com Ph: 02 8784 8555 E: samples.svinew@alsdobal.com

□NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com

DPERTH 10 Hod Way Malaga, WA 6090

Ph: 08 9209 7655 E: samples.perth@alsqlobal.com

DTOWNSVILLE 14-15 Desma Court Boble QLD 4818

DWOLLONGONG 1/19-21 Raiph Black Drive, Nth Wollongong NSW 2500 Phr 02 4225 3125 F. wollongong@alsolobal.com

CLIENT: JHCPB Contr	actors JV - Rozelle Interchange		TURNAROUND REQUIREMENTS: X Standard TAT (List due date): (Standard TAT may be longer for some tests en Ultra Trace Omanics) Non Standard or urgent TAT (List due date):						F	OR LABORAT	TORY USE O	NLY (Circle)			
OFFICE: 66-68 Lilyfield	l Rd, Security Hut	-		AT may be longer for some tests race Organics)	☐ Non S	tandard or urg	ent TAT (List o	due date):				ustody Seal Intac		Yes No	N/A
PROJECT: WestConne	ex 3B	PROJECT NO.:		OTE NO.:				COC SE	QUENCE NU	MBER (Circi		ree ice / frozen ic sceipt?	e bricks presen	t upon Yes No	Ŋ/A
ORDER NUMBER:	PURCHA	ASE ORDER NO.:	COUNTR	Y OF ORIGIN: AUSTRALIA				COC: 1	2 3	4 5 6	5 7 R	tandom Sample 1	emperature on	Receipt: 1500	
PROJECT MANAGER:	Julian Paul	CONTACT F	PH: 0409 19	95 132				OF: 1	2 3	4 5 (7 0	ther comment:		182	
SAMPLER: Julian Paul		SAMPLER N	OBILE: 04	109 195 132	RELINQUI	SHED BY: J	ilian Paul	RECEIVED B	Ali		RELING	QUISHED BY:		RECEIVED BY:	
COC Emailed to ALS?	(YES / NO)	EDD FORM	AT (or defa	ult):				Say f	1 se		නි	311/2	E.	1 Man	_
	lefault to PM if no other addresses a Illeinterchange.com.au; Julian.Pau				DATE/TIMI	E: 07/04/2021	16:00	DATE/TIME:	- pr-es: 	· -	DATE/	13 14/21 1600 DATE/TIME: 13/4/21 17			
Email Invoice to (will de	efault to PM if no other addresses are	e listed): Chetan.Jayaram@roz	elleinterch	ange.com.au				12/4	7 7	460		75 (7	7 7 6	De 13/4/21 17	. 25
COMMENTS/SPECIAL	HANDLING/STORAGE OR DISPOS	SAL:								(K3)					
ALS USE ONLY		PLE DETAILS Solid(S) Water(W)		CONTAINER INF	ORMATION	ı		REQUIRED inclutations are required, specify	-					Additional Information	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		DATE / TIME		TYPE & PRESERVA	ΓΙ V E	TOTAL	Analysis A01							Comments on likely contaminant level dilutions, or samples requiring specific analysis etc.	
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	(refer to codes belo	w)	BOTTLES	Standard Dust An								
'VRE01	WCX3B-RIC	8/03/2021 - 07/04/2021	w	CuSO₄ solution		1	. X								
WCX3B_RIC_ICL	WCX3B-RIC	10/03/2021 - 06/04/2021	w	CuSO₄ solution		1	x								
RRY1	WCX3B-RIC	10/03/2021 - 06/04/2021	w	CuSO₄ solution		. 1	х								
RRY2	WCX3B-RIC	10/03/2021 - 06/04/2021	w	CuSO₄ solution		1	х			-			Enviror Newcas	ımental Division stle	
													Work EN	Order Reference	
										-					
													Telephone :	+ 61 2 4014 2500	
															•
Vision Codo - 1	P = Unpreserved Plastic; N = Nitric Preser	nud Diartie: OPC - Nitrie Draces	AUBU- en -	Sodium Hydrovida/Cd Dreep and	TOTAL		wed Plastic: AC	= Amher Class Line	eserved: AD	Airfreight Lloss	PSPIVEN DIS	stic			
THE COURS: I	- Unpreserved Flastic, IN - INITIO Preser	I VOG I IDAGO, ONO - INIUIO FIESEIVE	- UI(U, UII -	Second in the contract of the served,		100000000000000000000000000000000000000		. artious diago oripi	rou, ru' -	organic caripi					



ALS Laboratory: please tick >

CLIENT: JHCPB Contractors JV - Rozelle Interchange

□ADELAIDE 3/1 Burma Road Pooraka SA 5095 Ph. 08 8162 5130 E: adelaide@alsglobal com □BRISBANE 2 Byth Street Stafford QLD 4053 Ph. 07 3243 7222 E: samples.brisbane@alsglobal.com

GLADSTONE 48 Callemondah Drive Gladstone QLD 4880 Ph: 07 4978 7944 E; dadstone@alsqlobal.com □MACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com

DMELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsglobal.com

DMUDGEE 1/29 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com

TURNAROUND REQUIREMENTS: X Standard TAT (List due date):

UNEWCASTLE 5/585 Maitland Road Mayfield West NSW 23@SYDNEY 277-289 Woodpark Road Smithfield NSW 2164
Ph: 02 4014 2500 E: samples.newcastle@alsglobal.com Ph: 02 4014 2500 E: samples.sydney@alsglobal.com

LIPERTH 10 Hod Way Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com

□NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com QTOWNSVILLE 14-15 Desma Court Bonle QLD 4818 Ph: 07 4796 0600 E: townsville environmental@alsglobal.com

FOR LABORATORY USE ONLY (Circle)

Ph: 07 4796 0600 E: townsville.environmental@alsglobal.com

LIWOLLONGONG 1/19-21 Ralph Black Drive, Nih Wollongong NSW 2500
Ph: 02 4225 3125 E: wollongong@alsglobal.com

OFFICE: 66-68 Lilyfield Ro	d, Security Hut		(Standard TAT e.g., Ultra Trac	may be longer for some tests e Organics)	ue date):				ustody Seal Intad		Yes	No N/A			
PROJECT: WestConnex 3	В	PROJECT NO.:	ALS QUOTI					cocs	SEQUENCE NUM	IBER (Circle)		ee ice / frozen ic ceipt?	e bricks preser	ntupon Yes (1	No N/A
ORDER NUMBER:	PURC	HASE ORDER NO.:	COUNTRY	F ORIGIN: AUSTRALIA				000(1)	2 3 4	5 6	7 Ra	andom Sample T	<u>ب</u>		
PROJECT MANAGER: Ro	ger Posgate	CONTACT	PH: 0437 291 3	354				OF: 1) 2 3 4	l 5 6	7 Ot	her comment:			
SAMPLER: Roger Posgate	e	SAMPLER I	MOBILE: 0437	291 354	RELINQUI	SHED BY: R	oger Posgate	RECEIVED	BY:		RELING	QUISHED BY:		RECEIVED BY:	
COC Emailed to ALS? (Y			AT (or default) :											
Email Reports to (will defa	ult to PM if no other addresses		aram@rozeliei	nterchange.com.au:	DATE/TIM	E: 15/04/202	13:00	DATE/TIME			DATE/T	IME:		DATE/TIME:	
Email Invoice to (will defau	It to PM if no other addresses	are listed): Chetan.Jayaram@roz						19/41	21 7:	ე -					
COMMENTS/SPECIAL HA	NDLING/STORAGE OR DISP	OSAL:						((K3)						
ALS USE ONLY		MPLE DETAILS (: Solid(S) Water(W)		CONTAINER INI	CONTAINER INFORMATION ANALYSIS REQ									Additional Inform	nation
							vv nere Meta	als are required, spe	city Lotal (unritered	pottle required) o	r uissoivea (meia filterea pottie	required).	Comments on likely contamina	ant lavele
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVA (refer to codes belo		TOTAL BOTTLES	Standard Dust Analysis A01							dilutions, or samples requiring analysis etc.	
RIC CWL	JHСРВ	09/03/2020 - 07/04/2021	w	CuSO ₄ solution	1	1	х								
							-								
		·											Enviror Newca	nmental Division stle	
													Work	Order Reference	
			-						•		-		FI	12103087	'
				•											
														PLACE CARPHAR CIMILAR	
	- No												Telephone	: + 61 2 4014 2500	
			-												
					TOTAL										
	- MOA Mai Cartinas Biandahata Da	served Plastic; ORC = Nitric Preserve eserved; VS = VOA Vial Sulfuric Prese F = Sterile Bottle; ASS = Plastic Bag fo	nvod: AV = Airfrai	aht Hanrasanvad Vial SG = Su	ilfuric Preservei	il Amber Glass	 H = BCI preser 	ved Plastic: HS ≈	: HCI preserved 5	ineciation bottle	served Plas s; SP = Sulfu	rtic uric Preserved P	lastic; F = For	maldehyde Preserved Glass;	



CLIENT: JHCPB Contractors JV - Rozelle Interchange

CHAIN OF CUSTODIA 6130 E: adelaide@alsglobal.com

☐BRISBANE 2 Byth Street Stafford QLD 4053

ALS Laboratory: please tickPt●07 3243 7222 E: samtiles brisbane@alsglobal.com

□GLADSTONE 48 Callemondah Drive Glädstone QLD 4680 Ph: 07 4978 7944 E: gladstone@alsglobal.com

DMACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com

DMELBOURNE 2-4 Westall Road Springvale VIC 3171

DMUDGEE 1/29 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com

TURNAROUND REQUIREMENTS: X Standard TAT (List due date):

CINEWCASTLE 5/585 Mailtand Road Mayfield West NSW 2304

Ph: 02 4014 2500 E: samples.newcastle@alsglobal.com

Ph: 02 8784 8555 E: samples.sydney@alsglobal.com

DNOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com

□PERTH 10 Hod Way Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com

DTOWNSVILLE 14-15 Desma Court Bohle QLD 4818
Ph. 07 4796 0600 E: townsvilla.environmental@alsglobal.com

FOR LABORATORY USE ONLY (Circle)

DWOLLONGONG 1/19-21 Raiph Black Drive, Nth Wollongong NSW 2500 Ph: 02 4225 3125 E: wollongong@alsglobal.com

FFICE: 66-68 Lilyfield	Rd, Security Hut		(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) Non Standard or urgent TAT (List due of the control of									ŀ	Custody Seal Intact? Yes No					
ROJECT: WestConnex	3B	PROJECT NO.:	ALS QUOT						COC SEQ	UENCE NUM	BER (Circle)		Free ice / frozen ice bricks present upon Yes No N//					
RDER NUMBER:	PURCHA	SE ORDER NO.:	COUNTRY	OF ORIGIN: AUSTRALIA				c	oc: 1 2	3 4	5 6		Random Sample Te	mperature o	n Receipt: 'C	_		
ROJECT MANAGER: J	ulian Paul	CONTACT F	H: 0409 195	132		***************************************			F: 1)2	3 4	5 6	7 0	Other comment:					
AMPLER: Julian Paul		SAMPLER N	IOBILE: 040	9 195 132	RELINQUI	SHED BY: J	ulian Paul	R	ECEIVED BY:			RELIN	QUISHED BY:		RECEIVED BY:	,		
OC Emailed to ALS? (•	EDD FORM	AT (or defaul	(t):					M									
mail Reports to (will de	fault to PM if no other addresses are	e listed): Chetan.Jayaram@ro	zelleintercha	ange.com.au:	DATE/TIME: 10/05/2021 16:00			D	ATE/TIME:			DATE/	TIME:		DATE/TIME:			
ıllan.Paul@rozelleinter									(15/21	17:								
mail Invoice to (will defa	ault to PM if no other addresses are	listed): Chetan.Jayaram@roz	elleinterchar	nge.com.au					(() ()(
OMMENTS/SPECIAL H	ANDLING/STORAGE OR DISPOS	AL:							(K7))							
	SAMPL	E DETAILS		CONTAINED IN	ANALYSIS RE			SIS REQ	JIRED includ	ing SUITES	(NB. Suite Co	des must	be listed to attract s	suite price)				
ALS USE ONLY	MATRIX: S	olid(S) Water(W)		CONTAINER INF	ORMATION			Metals are	required, specify T	otal (unfiltered b	ottle required) or	Dissolve	d (field filtered bottle re	quired).	Additional Inform	ation		
	4			.											Comments on likely contaminar dilutions, or samples requiring s			
							A01					ļ			analysis etc.	pecific QC		
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVA (refer to codes belo		TOTAL BOTTLES	Analysis											
				(10101 10 00000 0010	•••,	DOTTEE	Dust /											
							Standard											
WCX-3B	RRY1	06/04/2021 - 07/05/2021	w	CuSO ₄ solution		1	х								·			
WCX-3B	VRE01	07/04/2021 - 07/05/2021	w	CuSO₄ solution		1	х							÷	ļ			
WCX-3B	WCX3B_RIC_ICL	06/04/2021 - 07/05/2021	w	CuSO ₄ solution		1	х											
WCX-3B	RIC-CWL	08/04/2021 - 10/05/2021	w	CuSO₄ solution		1	x						En	vironm	ental Division			
WCX-3B	RRY2	06/04/2021 - 07/05/2021	w	CuSO₄ solution		1	x							weastle				
				•									- '		der Reference 2103937			
				<u>.</u>						-					103937			
															PRILAL BLAP - BES III			
													_					
														$\parallel \parallel 0.6$				
													Tele	phone : + 6	51 2 4014 2500			
				·											1.			
					TOTAL	4												
				odium Hydroxide/Cd Preserved;						1 45 4	1							



ALS Laboratory: please tick →

□ADELAIDE 3/1 Burma Road Pooraka SA 5095 Ph: 08 8162 5130 F. adelaide@elsolobel.com OBRISBANE 2 Buth Street Stafford OLD 4053 Ph: 07 3243 7222 F: samples hrishane@alsolobal.com

□GLADSTONE 48 Callemondair Drive Gladstone QLD 4680 Ph: 07 4978 7944 E: gladstone@alsglobal.com

DMACKAY 78 Harbour Road Mackay Of D 4740 Ph- 07 4944 0177 E: mackay@alsqlobal.com

DMELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples melbourne@alsolobat.com

☐MUDGEE 1/29 Sydney Road Mudgee NSW 2850 Ph; 02 6372 6735 E; mudgee mail@atsglobat.com

DNEWCASTLE 5/585 Maitland Road Mayfield West NSW 2302SYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsqlobal.com Ph: 02 4014 2500 E samples newcastle@alsglobal.com

DNOWRA 4/13 Geary Place North Nowra NSW 2541 Ph 02 4423 2063 E: nowra@alsglobal.com

DPERTH 10 Hod Way Malaga, WA 6090

Ph; 08 9209 7655 E: samples.perth@alsglobal.com

DTOWNSVILLE 14-15 Desma Court Bohle QLD 4618
Ph: 07 4796 0600 E: townsville, environmental@aisotobal.com

CIWOLLONGONG 1/19-21 Rainh Black Drive, Nih Wollongong NSW 2500. Ph; 02 4225 3125 E; wollongong@alsglobal.com

LIENT: JHCPB Contra	ctors JV - Rozelle Interchange	TURNARO	OUND REQUIREMENTS:	d TAT (List d	ue date):					FOR LABORATORY USE ONLY (Circle)								
FFICE: 66-68 Lilyfield	Rd, Security Hut		(Standard TA	AT may be longer for some tests ace Organics)	☐ Non St	andard or urg	ent TAT (List	due date):					Custody Seal I		Yes	No	(N/A	
PROJECT: WestConnex	: 3B	PROJECT NO.:	ALS QUO					С	OC SEQUE	NCE NUMB	R (Circle)		Free ice / froze receipt?	n ice bricks prese	nt upon Yes	No	N/A	
RDER NUMBER:	PURCHA	ASE ORDER NO.:	COUNTRY	OF ORIGIN: AUSTRALIA				coc:	1) 2	3 4	5 6	7	Random Samp	e Temperature o	n Receipt:	·c		
ROJECT MANAGER: F	Roger Posgate	CONTACT F	PH: 0437 291	1 354				OF:	1.—2	3 4	5 6	7	Other commen	:				
AMPLER: Sven Carlse	n	SAMPLER N	OBILE: 041	18 658 703	RELINQUIS	SHED BY: S	ven Carlsen	RECEIV	/ED BY:	1		RELIN	QUISHED E	Υ:	RECEIVED	BY:		
OC Emailed to ALS? (·	EDD FORM	AT (or defau	ilt):					/M									
mail Reports to (will de	fault to PM if no other addresses a	e listed): Chetan.Jayaram@ro	zelleinterch	ange.com.au	DATE/TIME	: 09/06/2021	13:00	13:00 DATE/TIME:					TIME:		DATE/TIME:			
mail Invoice to (will def	ault to PM if no other addresses are						10/4	6 /21	17	:00								
OMMENTS/SPECIAL H	IANDLING/STORAGE OR DISPOS	SAL:							(K	- 					,			
ALS USE ONLY		LE DETAILS Solid(S) Water(W)		CONTAINER INF	ORMATION			REQUIRED	_					act suite price)	Addition	nal Informatio	on	
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVAT (refer to codes below		TOTAL BOTTLES	Standard Dust Analysis A01		, specify 10th	(dillintared po	as required; or			au (ogui ogu	Comments on likely dilutions, or sample analysis etc.			
1	RRY1	07/05/2021 - 09/06/2021	w	CuSO ₄ solution		1	х											
2	RRY2	07/05/2021 - 09/06/2021	w	CuSO ₄ solution		1	х			·								
3	VRE01	07/05/2021 - 09/06/2021	w	CuSO ₄ solution		1	х											
4	RIC/CWL	10/05/2021 - 08/06/2021	w	CuSO ₄ solution		1	х								Environmer	ntal Divis	ion	
Ś	ICL	07/05/2021 - 09/06/2021	w	CuSO₄ solution		1	х			-					Newcastle Work Order EN21	· Reference	2	
														T	elephone : +61 2 4	014 2500		
	,																	
					TOTAL	5												
Inter Container Codes: D:	= Uppreserved Plastic: N = Nitric Preser	ved Plastic: ORC = Nitric Preserved	ORC SH = 9	Sodium Hydroxide/Cd Preserved:	S = Sodium Hv	droxide Preser	ved Plastic: AG	= Amber Glas	s Unpreserv	ed; AP - Airfi	eight Ungres	erved Pl	astic					

v = VQA Vial HCl Preserved; VB = VQA Vial Sodium Bisulphate Preserved; VS = VQA Vial Sodium Bisulphate Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles. Form Page 1 of 1 ENFM [204/13]



ALS Laboratory: please tick ->

DADELAIDE 3/1 Burma Road Pooraka SA 5095 Ph: 08 8162 5130 E: adelaide@alsglobal.com

□BRISBANE 2 Buth Street Stafford OLD 4053 Ph: 07 3243 7222 F: samples brisbane@alsglobal.com

□GLADSTONE 48 Callemondah Drive Gladstone QLD 4680 Ph: 07 4978 7944 E: gladstone@alsglobal.com

DMACKAY 78 Harbour Road Mackay QLD 4740

DMELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsglobal.com

DMUDGEE 1/29 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com

DNEWCASTLE 5/585 Malitand Road Mayfield West NSW 2304 DSYDNEY 277-289 Woodpark Road Ph: 02 4014 2500 E: samples.newcastle@alsglobal.com

□NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com

DPERTH 10 Hod Way Malaga, WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com Ph: 02 8784 8555 E: samples.svdnev@u

☐TOWNSVILLE 14-15 Desma Court Bohle G_ Ph: 07 4796 0600 E: townsville.environmental@also.

DWOLLONGONG 1/19-21 Ralph Black Drive, Nth Wollongong Ph. 02 4225 3125 E; wollongong@alsglobal.com

LIENT: JHCPB Contra	ictors JV - Rozelle Interchange		1		X Standa	rd TAT (List d	ue date):					F	OR LABORA	TORY USE	ONLY (Circle)		
FFICE: 66-68 Lilyfield	Rd, Security Hut		(Standard Tr e.g., Ultra Tr	AT may be longer for some tests race Organics)	☐ Non S	standard or urg	jent TAT (List	due date):	:				stody Seal Inta		Yes	No	(N/A
ROJECT: WestConner	x 3B	PROJECT NO.:	ALS QUO	TE NO.:		-			COC SEQUE	NCE NUMB	ER (Circle		ee ice / frozen i ceipt?	ce bricks prese	ent upon Yes	No	N/A
RDER NUMBER:	PURCHAS	SE ORDER NO.:	COUNTRY	Y OF ORIGIN: AUSTRALIA				coc:	① ² _	3 4	5 6	7 R	andom Sample	Temperature o	n Receipt:	.c	
ROJECT MANAGER: I	Lawson Gill	CONTACT P	H: 0488 77	1 940				OF:	1 (2)	3 4	5 6	7 0	her comment:				
AMPLER: Lawson Gill	l .	SAMPLER M	OBILE: 04	88 771 940	RELINQUI	SHED BY: Jo	sh Steward	RECE	EIVED BY:			RELING	UISHED BY	;	RECEIVED E	Y:	
OC Emailed to ALS? (•	EDD FORMA	AT (or defau	ult):				(_						
hetan.Jayaram@rozel	efault to PM if no other addresses are leinterchange.com.au, lawson.gill@	rozelleinterchange.com.au			DATE/TIMI	E: 13/07/2020	11:00	DATE	E/TIME:	, S	pm	DATE/T	IME:		DATE/TIME:		
	fault to PM if no other addresses are li leinterchange.com.au, lawson.gill@							1/	1/1/	<u> </u>							
OMMENTS/SPECIAL I	HANDLING/STORAGE OR DISPOSA	AL:							(.						_		
ALS USE ONLY		E DETAILS lid(S) Water(W)		CONTAINER INFO	ORMATION	ı							e listed to attrac		Additional	Informati	ion
LAB ID			MATRIX	TYPE & PRESERVATIVE (refer to codes below)		TOTAL BOTTLES	Standard Dust Analysis A01								Comments on likely or dilutions, or samples re analysis etc.		
ICL	ЈНСРВ	09/06/2021 - 08/07/2021	w	CuSO ₄ solution		1	x										
RRY2	WCX3B	09/06/2021 - 08/07/2021	w	CuSO ₄ solution		1	х					İ					
RRY1	wcx3B	09/06/2021 - 08/07/2021	w	CuSO ₄ solution		1	х					Envi	onment astle	al Divisi	on		
												E	rk Order F N 2 1 ()6		
· · ·					TOTAL	3											
ater Container Codes: P	ed Plastic; ORC = Nitric Preserved	ORC; SH=	Sodium Hydroxide/Cd Preserved; S	S = Sodium H	 ydroxide Preser	ved Plastic; AG	≃ Amber G	lass Unpreser	ved; AP - Air	reight Unpre	served Plas	tic	<u></u>				

V = VOA Vial HCI Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfurio Preserved; AV = Airfreight Unpreserved Amber Glass; H = HCI preserved Plastic; F = Formaldehyde Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.



ALS Laboratory: please tick →

□ADELAIDE 3/1 Burma Road Pooraka SA 5095 Ph: 08 8162 5130 E: adelaide@alsolobal.com

□BRISBANE 2 Byth Street Stafford QLD 4053 Ph: 07 3243 7222 F: samples hrisbane@alsglobal.com

□GLADSTONE 48 Callemondah Drive Gladstone QLD 4680 Ph: 07 4978 7944 E: gladstone@alsglobal.com

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DMIIDGEE 1/29 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com

DNEWCASTLE 5/585 Mailland Road Mayfield West NSW 2304 DSYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 4014 2500 E: samples newcastle@alsglobal.com

DNOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com

□PERTH 10 Hod Way Malags WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com Ph: 02 8784 8555 E: samples.svdnev@alsglobal.com

LITOWNSVILLE 14-15 Desma Court Bohle QLD 4818 Ph: 07 4796 0600 F: townsville environmental@alsolobal.com

□WOLLONGONG 1/19-21 Ralph Black Drive, Nth Wollongong NSW 2500 Ph; 02 4225 3125 E; wollongong@alsglobal.com

CLIENT: JHCPB Contractors JV - Rozelle Interchange				TURNAROUND REQUIREMENTS: X Standard TAT (List due date): FOR LABORATORY US										TORY USE C	ONLY (Circle)					
OFFICE: 66-68 Lilyfield	Rd, Security Hut		(Standard 1	TAT may be longer for some tests Trace Organics)	□ Non 5	Standard or ur	gent TAT (List	t due da	ate):			Cu	stody Seal Inta	ct?	Yes	No	_c :N/A			
PROJECT: WestConnex	x 3B	PROJECT NO.:		OTE NO.:					COC SEQU	JENCE NUME	BER (Circle		ee ice / frozen id eipt?	e bricks prese	nt upon Yes	No	NA			
ORDER NUMBER:	PURCHA	SE ORDER NO.:	COUNTR	RY OF ORIGIN: AUSTRALIA			coc: 1 2 3 4 5 6						7 Random Sample Temperature on Receipt: C							
PROJECT MANAGER: I	Lawson Gill	CONTACT F	PH: 0488 7	71 940					OF: 1 (2	<u>)</u> 3 4	5 6	7 Ott	ner comment:							
SAMPLER: Lawson Gill		SAMPLER N	MOBILE: 04	488 771 940	RELINQUISHED BY: Josh Steward			R	ECEIVED BY:			RELINQ	UISHED BY:		RECEIVED B	Y:				
COC Emailed to ALS? (EDD FORMA	AT (or defa	ault):					Ce	est. "										
Email Reports to (will de Chetan.Jayaram@rozeli	efault to PM if no other addresses are leinterchange.com.au, lawson.gilt(e listed): @rozelleinterchange.com.au			DATE/TIME: 13/07/2020 11:00			, D	ATE/TIME:	1 6	_	DATE/TI	ME:	•	DATE/TIME:					
Email Invoice to (will def	fault to PM if no other addresses are leinterchange.com.au, lawson.gill(listed):							14/7/	21 3	m									
COMMENTS/SPECIAL H	HANDLING/STORAGE OR DISPOS	AL:								·										
ALS USE ONLY		LE DETAILS olid(S) Water(W)		CONTAINER INF	ORMATION	ı			UIRED includi						Additional Information					
															Comments on likely cor dilutions, or samples re analysis etc.					
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVAT			Standard Dust Analysis A01													
					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Standard				. 1.									
RIC-CWL	JHCPB	09/06/2021 - 08/07/2021	w	CuSO ₄ solution		1	×													
VRE1	WCX3B	09/06/2021 - 08/07/2021	w	CuSO₄ solution		1	X.					1.								
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	i.																			
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	·				TOTAL	. 2										•	a to the			
Water Container Codes: P	= Unpreserved Plastic: N = Nitric Preserv	red Plastic: ORC = Nitric Preserved	ORC; SH=	Sodium Hydroxide/Cd Preserved;	S = Sodium F	lydroxide Prese	rved Plastic; AG	3 = Amb	er Glass Unprese	erved; AP - Air	freight Unpre	served Plast	ic	1						

V = VOA Vial HCI Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sodium Bisulphate Preserved Plastic; F = Formaldehyde Preserved Glass; H = HCI preserved Plastic; HS = HCI preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle, E = EDTA Preserved Bottles, ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soits; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles



ALS Laboratory: please tick >

DADELAIDE 3/1 Burma Road Pooraka SA 5095 Ph: 08 8162 5130 E: adelaide@alsolobal.com

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□MUDGEE 1/29 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee mail@alsglobal.com

DINEWCASTLE 5/585 Mailland Road Mayfield West NSW 2304 DSYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph; 02 4014 2500 E: samples.newcastle@alsglobal.com

□NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com

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Ph; 07 4796 0600 E townsville environmental@alsglobal.com

FOR LABORATORY USE ONLY (Circle)

DWOLLONGONG 1/19-21 Raigh Black Drive. Nth Wolfongong NSW 2500 Ph: 02 4225 3125 E. wellongong@alsglobal.com

CLIENT: JHCPB Contra	actors JV - Rozelle Interchange		1	OUND REQUIREMENTS :	FOR LABO	FOR LABORATORY USE ONLY (Circle)											
OFFICE: 66-68 Lilyfield	d Rd, Security Hut			AT may be longer for some tests race Organics)	☐ Non St	andard or ur	gent TAT (List d	ue date):			Custody Seal			Yes	No	N/A	
PROJECT: WestConne	ex 3B	PROJECT NO.:	ALS QUO					COC SEQL	JENCE NUMBER	(Circle)	Free ice / froz receipt?	en ice bricks pres	sent upon	Yes	No	N/A	
ORDER NUMBER:	PURCH	ASE ORDER NO.:	COUNTR	Y OF ORIGIN: AUSTRALIA				coc: 1 2	3 4 5	6 7	Random Sample Temperature on Receipt: C						
PROJECT MANAGER:	Ciara Moriarty	CONTACT	PH: 041773	8136				OF: 1 2	3 4 5	6 7	Other comment:						
SAMPLER: Ciara Moria	arty	SAMPLER I	MOBILE: 04	17738136	RELINQUIS	HED BY: C	iara Moriarty	RECEIVED BY:		REI	INQUISHED	BY:	F	RECEIVED BY:	:		
COC Emailed to ALS?	(YES / NO)	EDD FORM	AT (or defa	ult):] '												
Email Reports to (will d Chetan.Jayaram@roze ciara.moriarty@rozelle		re listed):			DATE/TIME	: 10/08/202	1 09:00	DATE/TIME:	spm	DAT	E/TIME:		c	DATE/TIME:			
Email Invoice to (will de	efault to PM if no other addresses ar	e listed): Chetan.Jayaram@roz	zelleinterch	ange.com.au				11/08/2	1								
COMMENTS/SPECIAL	HANDLING/STORAGE OR DISPO	SAL:						- ("1	1 K3)							
ALS USE ONLY SAMPLE DETAILS MATRIX: Solid(S) Water(W)				CONTAINER INF			REQUIRED includi	•			. ,		Additional Information				
LAB ID	LABID SAMPLEID DATE / TIME		MATRIX	TYPE & PRESERVAT (refer to codes belov		TOTAL BOTTLES	Standard Dust Analysis A01							tainers - one has		second	
RRY1	WCX3B	08/07/2021 - 09/08/2021	w	CuSO₄ solution		1	х							_			
RRY2	WCX3B	08/07/2021 - 09/08/2021	w	CuSO ₄ solution		1	х										
VRE1	WCX3B	08/07/2021 - 09/08/2021	w	CuSO₄ solution		1	х										
CWL	WCX3B	08/07/2021 - 09/08/2021	w	CuSO₄ solution	solution		x				mental Division						
ICL 1	WCX3B	08/07/2021 - 09/08/2021	w	CuSO ₄ solution		1	х			wcastle Work Ord EN2	er Referer 1070	946					
												The state of the s					
				·					rele	prone: +61	2 4014 2500	- 					
					TOTAL	5											
V ~ VOA Vial HOLDresonier	P = Unpreserved Plastic; N = Nitric Prese d; VB = VOA Vial Sodium Bisulphate Pres Bottle; E = EDTA Preserved Bottles; ST =	erved: $VS = VOA Vial Sulfuric Preser$	rved: AV = Air	freight Unpreserved Vial SG = Sulf	furic Preserved	Amber Glass	: H = HCl preser	ved Plastic: HS = HCI	preserved Speciation	t Unpreserved on bottle; SP =	Plastic Sulfuric Preserv	ed Plastic; F = F	ormaldehyde	> Preserved Glas	.\$;		