ENVIRONMENT
& HEALTH

Tarago Station
C/-
Tarago Railway Station, Goulburn Street
Tarago NSW 2580

Delivered: by email

Tarago Railway Station, Goulburn Street, Tarago NSW
Internal Dust Removal Report

Date 12/10/2020

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In December 2019, March 2020 and August 2020 Ramboll completed assessments of lead impacts at Tarago Railway Station on behalf of Transport for NSW. The assessment included amongst other things, investigation of lead in internal dust.

Key findings were that lead in internal dust exceeded adopted assessment criteria.

This report describes the removal of dust from readily accessible spaces (excluding ceiling cavities) and the risk associated with lead in these areas following dust removal. A site figure is presented as **Attachment 1**.

Dust removal works were completed at the Tarago Station on the 9 – 10 September 2020 and included:

1. High-efficiency particulate air (HEPA) filter vacuum of floors and windowsills
2. Wet wipe and/or steam mopping of hard surfaces
3. Visual inspection and photographic evidence to confirm removal of dust
4. Confirmatory sampling of floors and windowsills to assess lead loadings in remnant dust.

Confirmatory samples were sent to a National Association of Testing Authorities (NATA) accredited laboratory for analyses.

Results

Visual inspection of floors and windowsills found no evidence of visible dust demonstrating that dust was removed to the extent practical. Photographs are presented as **Attachment 2**.

Confirmatory sample results were assessed against the relevant guidelines protective of human health and are presented in summary in **Table 1**. Laboratory reports are presented as **Attachment 3**.

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Table 1 Summary lead loading results relevant to health investigation levels

Type	Guideline	Result[2] (µg/m²)			
Dust Interior - Floors	1,000 (µg/m²)[1]	DSWAB_VALA(TS) 478	DSWAB_VALB(TS) **3,333**	DSWAB_VALD(TS) **2,111**	DSWAB_VALF(TS) **6,111**
		DSWAB_VALG(TS) **22,222**	DSWAB_VALH(TS) **12,222**	DSWAB_DUP2 **2,556**	
Dust Interior – Windowsills and Shelves	5,000 (µg/m²)[1]	DSWAB_VALC(TS) 2,048	DSWAB_VALE(TS) 303		

[1] AS 4361.2-1998 Guide to lead paint management - Residential and commercial buildings.

[2] The dust results presented are lead loadings (µg lead/m²). Lead loadings were calculated as follows:

Lead loading (µg/m²) = Total lead (µg) / sample area (m²).

Table 1 presents a comparison of results from confirmatory dust sampling against criteria from relevant guidelines protective of human health. Lead loadings in internal dust were reported above adopted guideline values in six samples. The degree of exceedance (> 10 times the guideline in two instances) is sufficient to indicate a potential risk is likely to remain where station workers are exposed to internal dust.

Previous observation of lead based paint on external walls (Ramboll 2020) and observation of similar paint on internal walls and in poor condition indicates paint may present an ongoing source of potential lead in dust.

Lead paint should be managed in accordance with AS 4361.2-1998 Guide to lead paint management - Residential and commercial buildings

It is understood that station buildings are not frequently used and it is recommended that further removal of dust and/or site specific risk assessment occurs to mitigate risks associated with the observed lead loadings.

For further information please contact the undersigned.
Yours sincerely,

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Tarago Lead Investigation Project Manager

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Attachments

1. Site figure
2. Photographic Log
3. Laboratory Report

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Reference

AS 4361.2-1998 Guide to lead paint management - Residential and commercial buildings

Ramboll 2020, Lead Investigation Report – Tarago Station Tarago NSW

Limitations

Ramboll Australia Pty Ltd prepared this report in accordance with the scope of work as outlined in our proposal to John Holland Rail and in accordance with our understanding and interpretation of current regulatory standards. A representative program of sampling and laboratory analyses was undertaken as part of this investigation. While every care has been taken, concentrations of contaminants measured may not be representative of conditions between the locations sampled and investigated. We cannot therefore preclude the presence of materials that may be hazardous. Site conditions may change over time. This report is based on conditions encountered at the Site at the time of the report and Ramboll disclaims responsibility for any changes that may have occurred after this time. The conclusions presented in this report represent Ramboll's professional judgment based on information made available during the course of this assignment and are true and correct to the best of Ramboll's knowledge as at the date of the assessment. Ramboll did not independently verify all of the written or oral information provided to Ramboll during the course of this investigation. While Ramboll has no reason to doubt the accuracy of the information provided to it, the report is complete and accurate only to the extent that the information provided to Ramboll was itself complete and accurate. This report does not purport to give legal advice. This advice can only be given by qualified legal advisors.

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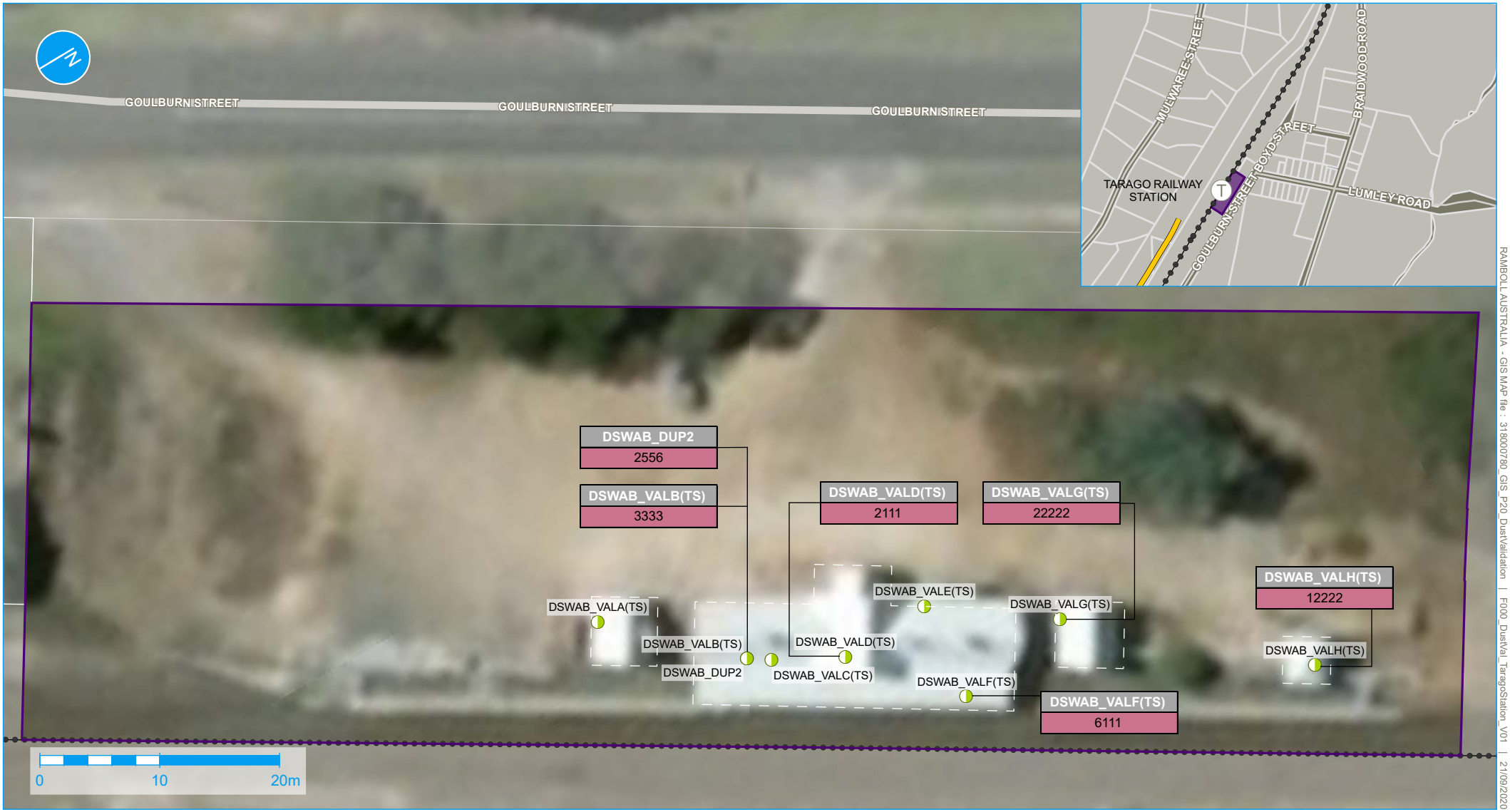
Attachment 1 – Site Figure



RAMBOLL AUSTRALIA - GIS MAP file : 318000780_GIS_P20_DustValidation | F000_DustVal_TaragoStation_V01 | 21/09/2020

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

A4
1:450

Legend

- Site boundary
- Dust validation sample (following cleaning)

Lead exceedance criteria

Dust Interior	
Floors	>1000(µg/m2)

Internal Dust Removal Validation: Tarago Train Station, Tarago NSW

Attachment 2 – Photographic Log

Photo 1: Floor dust swab sampling at location DSWAB_VALA(TS).

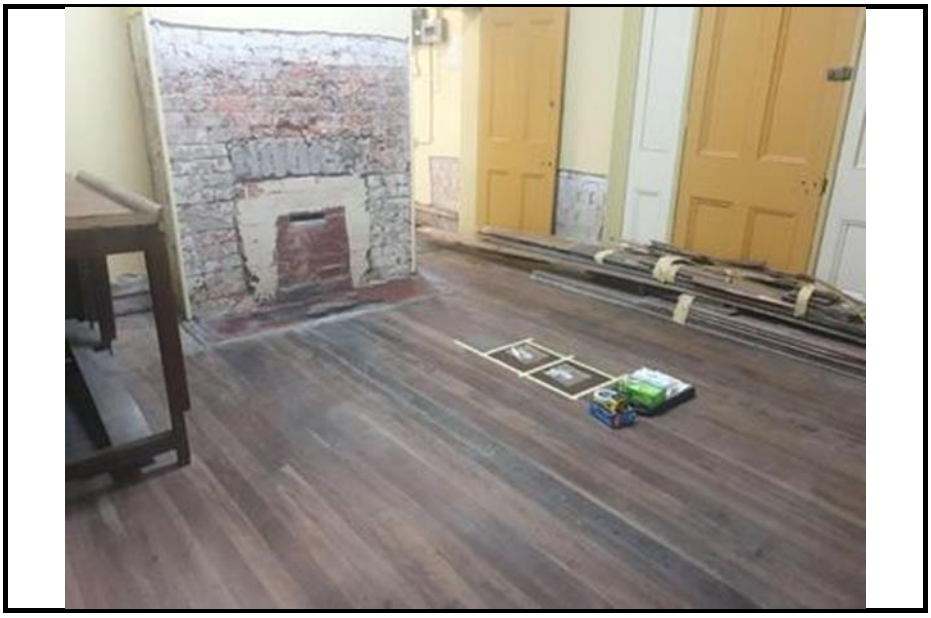


Photo 2: Floor dust swab sampling at location DSWAB_VALB(TS) with duplicate sample DSWAB_DUP2.

Photo 3: Shelf (fireplace mantle) dust swab sampling at location DSWAB_VALC(TS).

Photo 4: Shelf (fireplace mantle) dust swab sampling at location DSWAB_VALC(TS).

Photo 5: Floor dust swab sampling at location DSWAB_VALD(TS).

Photo 6: Windowsill dust swab sampling at location DSWAB_VALE(TS).

Photo 7: Windowsill dust swab sampling at location DSWAB_VALE(TS).

Photo 8: Floor dust swab sampling at location DSWAB_VALF(TS).

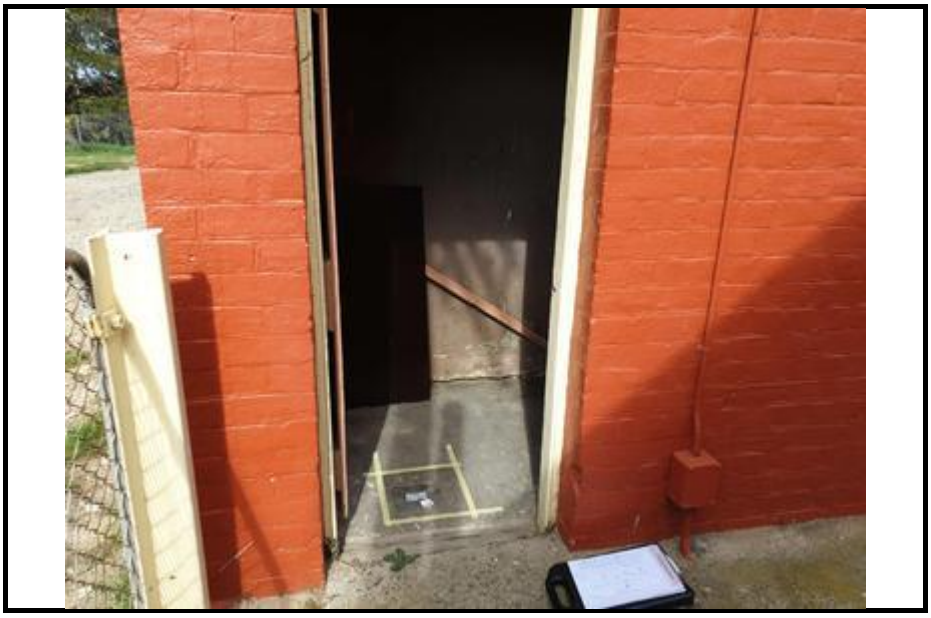


Photo 9: Floor dust swab sampling at location DSAB_VALG(TS).

Photo 10: Floor dust swab sampling at location DSAB_VALH(TS).

Attachment 3 - Laboratory Report

Ramboll Environ Australia Pty Ltd
Level 3/100 Pacific Highway
North Sydney
NSW 2060

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Stephen Maxwell**

Report **743701-A**
Project name TS
Project ID 318000780
Received Date Sep 11, 2020

Client Sample ID			**DSWAB_VALA (TS)**	**DSWAB_VALB (TS)**	**DSWAB_VALC (TS)**	**DSWAB_VALD (TS)**
Sample Matrix			**Wipes**	**Wipes**	**Wipes**	**Wipes**
Eurofins Sample No.			**S20-Se21611**	**S20-Se21612**	**S20-Se21613**	**S20-Se21614**
Date Sampled			**Sep 10, 2020**	**Sep 10, 2020**	**Sep 10, 2020**	**Sep 10, 2020**
Test/Reference	LOR	Unit				
Heavy Metals						
Lead	1	Total ug	43	300	43	190

Client Sample ID			**DSWAB_VALE (TS)**	**DSWAB_VALF (TS)**	**DSWAB_VALG (TS)**	**DSWAB_VALH (TS)**
Sample Matrix			**Wipes**	**Wipes**	**Wipes**	**Wipes**
Eurofins Sample No.			**S20-Se21615**	**S20-Se21616**	**S20-Se21617**	**S20-Se21618**
Date Sampled			**Sep 10, 2020**	**Sep 10, 2020**	**Sep 10, 2020**	**Sep 10, 2020**
Test/Reference	LOR	Unit				
Heavy Metals						
Lead	1	Total ug	10	550	2000	1100

Client Sample ID			**DSWAB_DUP2**
Sample Matrix			**Wipes**
Eurofins Sample No.			**S20-Se21619**
Date Sampled			**Sep 10, 2020**
Test/Reference	LOR	Unit	
Heavy Metals			
Lead	1	Total ug	230