



Specific uncertainties and limitations noted for the preliminary remedial strategy are as follows:

- The remediation strategies contained in this report are not intended to be prescriptive, but rather to provide direction for the purposes of remediation planning and detailed design.
- Site conditions may have changed since previous investigations due to natural processes, site operations and activities, and remediation actions.
- Information relied on to develop the remedial strategy for the Source Site is from previous investigations that focussed on assessment of volatile chlorinated compounds, and there is limited information in relation to other potential contaminants and constituents of concern within soils.
- Information relied on to develop the remedial strategy for Parcel 1, Parcel 2 and Parcel 4 is from previous investigations that were restricted in access in parts due to site buildings, structures and operations. Further investigation would increase the level of certainty in the remediation requirements, as proposed in this RAP.
- Not all available site information has been presented, discussed or referenced in this report. While this report documents a summary or key information, there may be other information that is available.



15.0 References

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Note: Additional references of historical investigations are provided in **Appendix C**.



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Figure 9A: Nominal Remediation Extent



Address: Level 5, 201 Kent Street,
Sydney NSW 2000
(02) 9994 8016
Website: www.senversa.com.au

Legend

- Remediation Site (MO Notice Number 20111403)
- Source Site (MO Notice Number 20154405)
- Lawrence Dry Cleaners
- Lot 3 Young Street
- Lot 4 Bourke Street
- Transformer Yard
- Lot Boundary

Notes:
Cadastre and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Neamap Pty Ltd

Designed: M. Coles Date: 12/10/2020
Drawn: M. Sari Revision: 2
Checked: A. Woinarski Scale: 1:1,200 (A3)
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Datum GDA 1984, Projection MGA Zone 56

Figure No:

1

Title:

Site Location and Layout

Project:

Remedial Action Plan

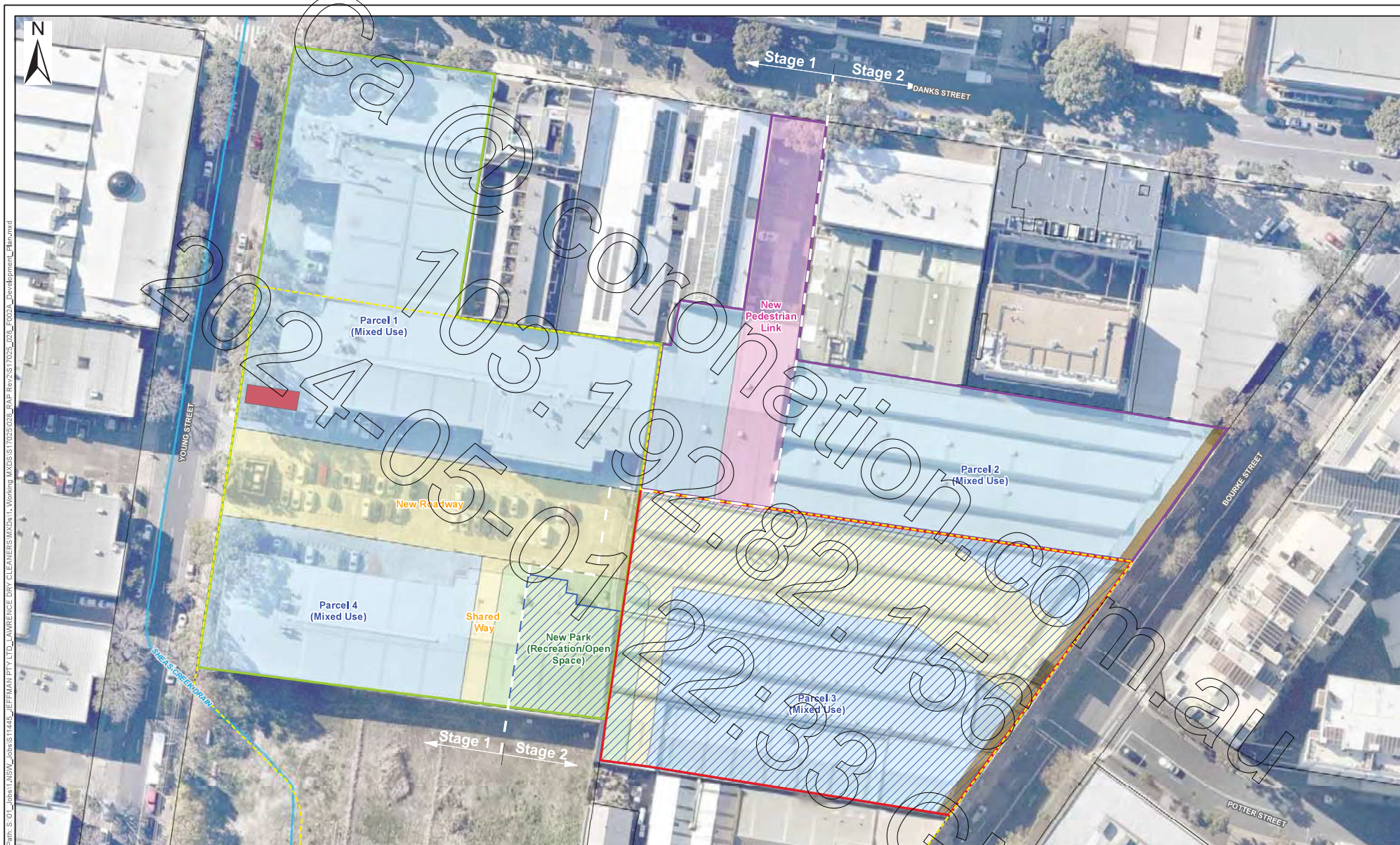
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Jeffman Danks South Street Precinct

Client:

Jeffman Pty Ltd

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Address: Level 5, 201 Kent Street,
Sydney NSW 2000
Phone: (02) 9994 8016
Website: www.senversa.com.au

Legend

- Remediation Site (MO Notice Number 20111403)
- Source Site (MO Notice Number 20154405)
- Lawrence Dry Cleaners
- Lot 3 Young Street
- Lot 4 Bourke Street
- Proposed Substation Easement
- Lot Boundary

Development Land Use

- Parcel (Mixed Use)
- New Road
- New Park (Recreation/Open Space)
- New Pedestrian Link
- Future Footpath Easement

Notes:
Cadastral and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Nearmap Pty Ltd

Designed: M. Coles
Drawn: M. Sari
Checked: A. Woinarski
File: S17025_028_F002A_Development_Plan

Date: 10/02/2021
Revision: 2
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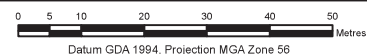


Figure No:

2A

Title:

Site Concept Development Plan

Project:

Remedial Action Plan

Location:

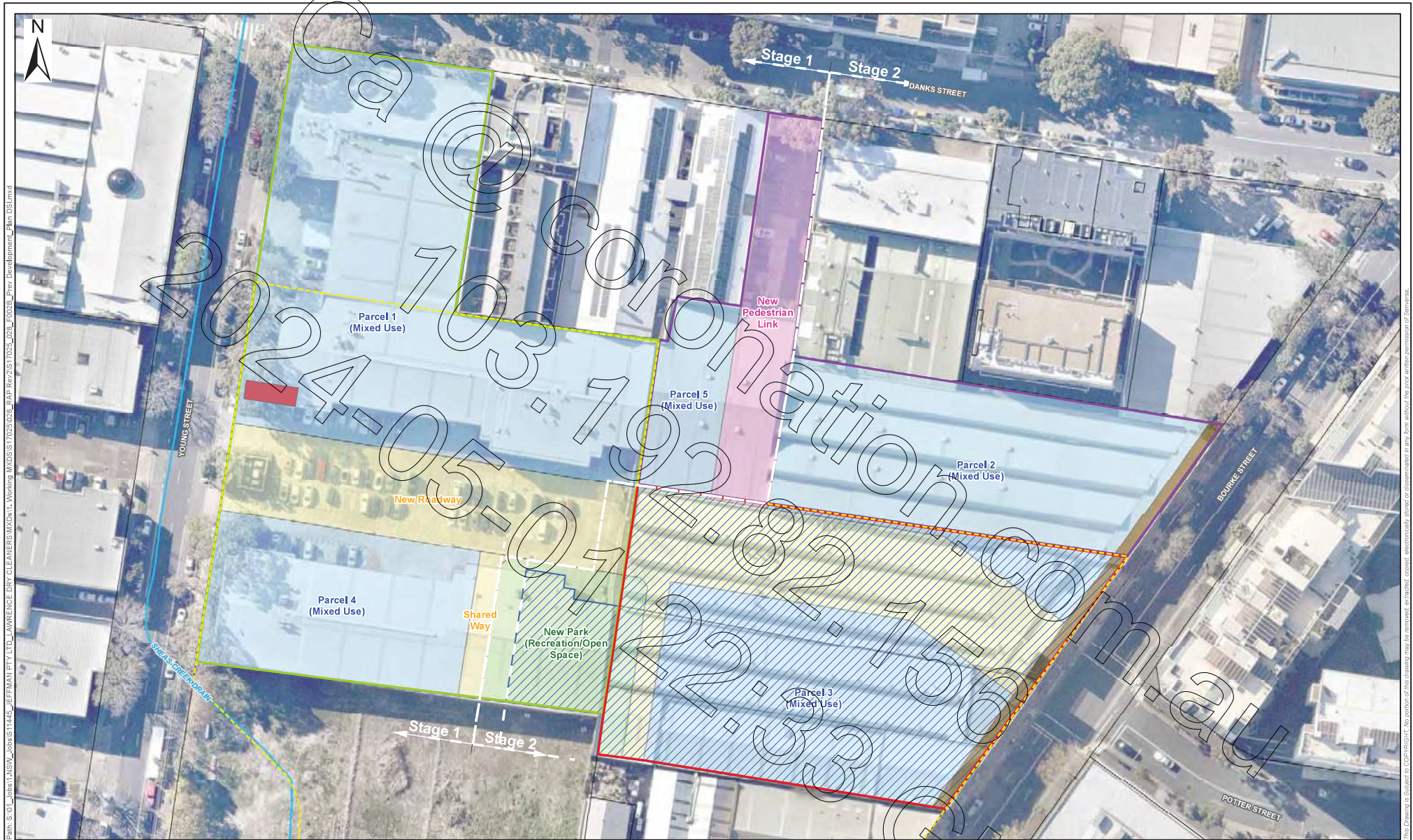
Jeffman Danks South Street Precinct

Client:

Jeffman Pty Ltd

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Address: Level 5, 201 Kent Street,
Sydney NSW 2000
(02) 9994 8016
Website: www.senversa.com.au

Legend

- Remediation Site (MO Notice Number 20111403)
- Source Site (MO Notice Number 20154405)
- Lawrence Dry Cleaners
- Lot 3 Young Street
- Lot 4 Bourke Street
- Proposed Substation Easement
- Lot Boundary

Development Land Use

- Parcel (Mixed Use)
- New Road
- New Park (Recreation/Open Space)
- New Pedestrian Link
- Future Footpath Easement

Notes:
Cadastral and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Nearmap Pty Ltd

Designed: M. Coles
Drawn: M. Sari
Checked: A. Woinarski
File: S17025_028_F002B_Prev Development_Plan DSI

Date: 10/02/2021

Revision: 2

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Figure No:

Title:

Project:

Location:

Client:

2B

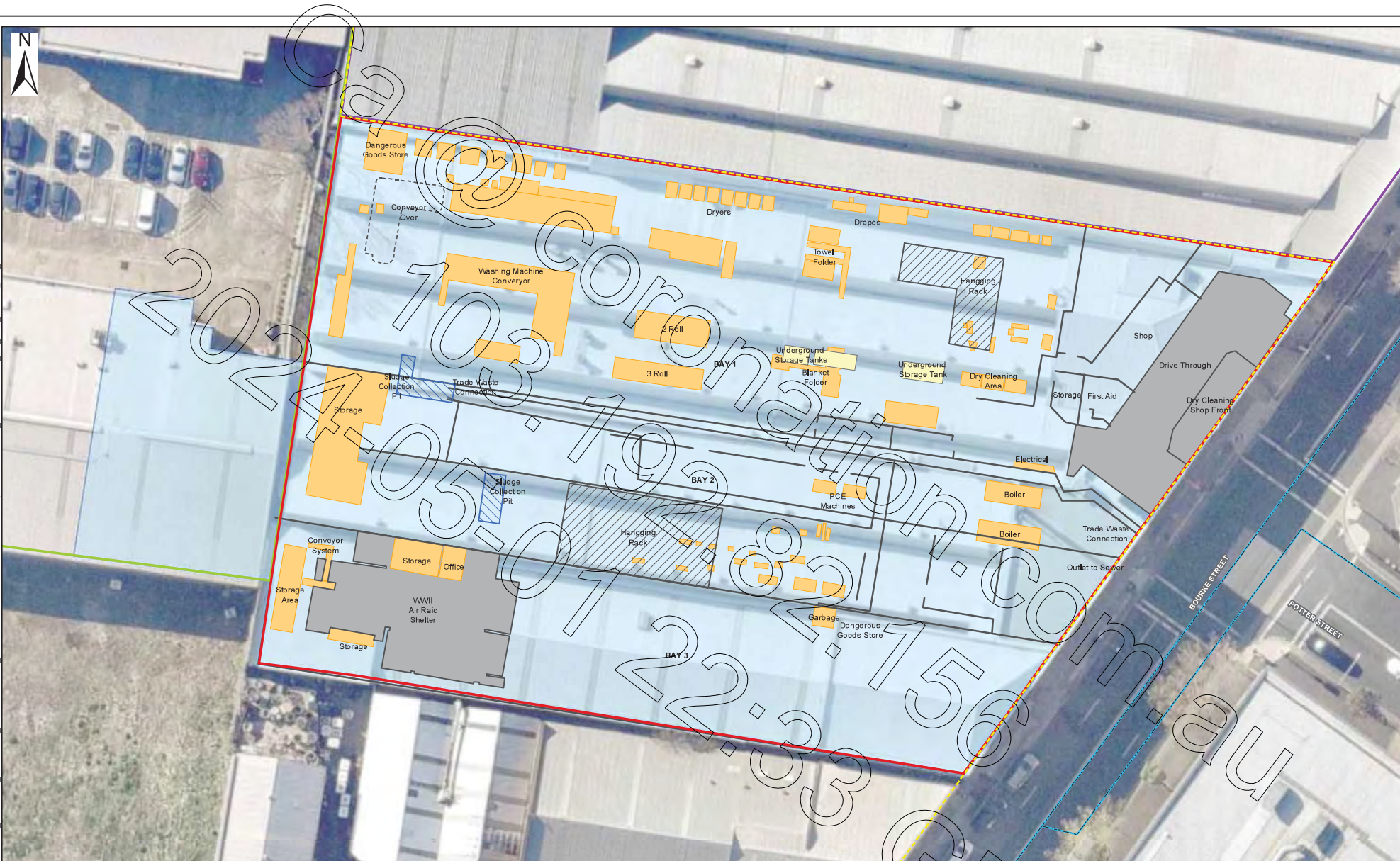
Previous Site Concept Development Plan (DSI)

Remedial Action Plan

Jeffman Danks South Street Precinct

Jeffman Pty Ltd

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Address: Level 5, 201 Kent Street,
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Legend

- Sydney Water Sewerage
- Source Site (MO Notice Number 20154405)
- Remediation Site (MO Notice Number 20111403)
- Lawrence Dry Cleaners
- Lot 3 Young Street
- Lot 4 Bourke Street
- Sludge Collection Pit
- Underground Storage Tank

Notes:
Cadastre and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Neamap Pty Ltd

Designed:	M. Coles	Date:	16/02/2021
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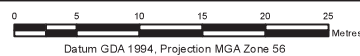


Figure No:

3

Title:

Historical LDC Layout

Project:

Remedial Action Plan

Location:

Jeffman Danks South Street Precinct

Client:

Jeffman Pty Ltd



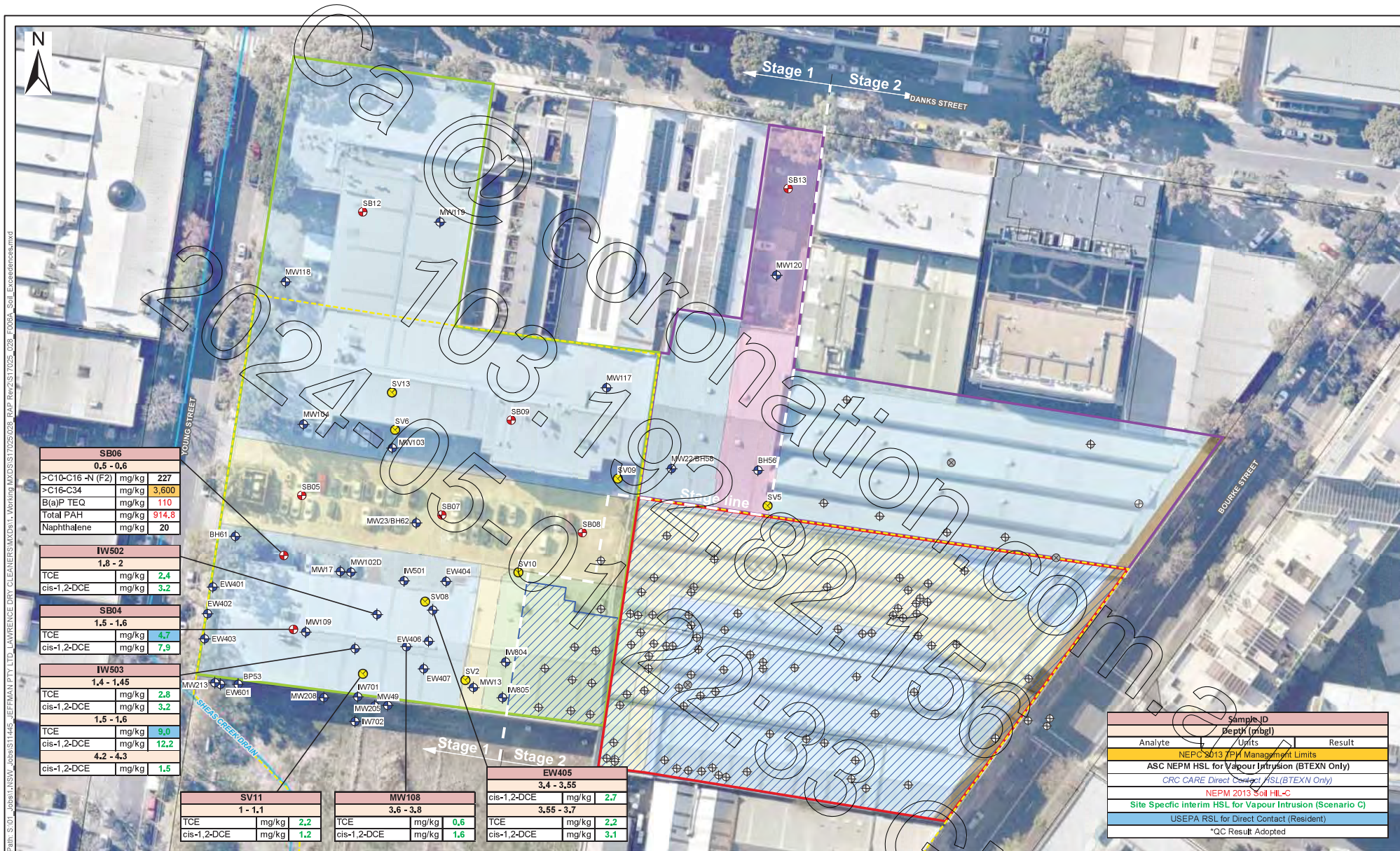
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Address: Level 5, 201 Kent Street, Sydney NSW 2000 (02) 9994 8016 Website: www.servensa.com.au	Designed: M. Coles		Date: 10/02/2021	Figure No: 4A Title: Historical Investigation Locations Project: Remedial Action Plan Location: Jeffman Danks South Street Precinct Client: Jeffman Pty Ltd
	Drawn: M. Sari		Revision: 2	
	Checked: A. Woinarski		Scale: 1:1,500 (A3)	
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		Datum GDA 1994, Projection MGA Zone 56		

Aerial imagery (05/09/2015) sourced from Nearmap Pty Ltd

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Address: Level 15, 201 Kent Street,
Sydney NSW 2000
(02) 9554 9016
Website: www.senversa.com.au

Legend

- Stage 1**
- Groundwater Well
 - Soil Bore
 - Soil Vapour
- Offsite**
- Groundwater Well
 - Soil Bore
 - Soil Vapour
- Remediation Site (MO Notice Number 20111403)
- Source Site (MO Notice Number 20154405)
- Lawrence Dry Cleaners
- Lot 3 Young Street
- Lot 4 Bourke Street
- Lot Boundary

Development Land Use

- Parcel (Mixed Use)
- New Road
- New Park (Recreation/Open Space)
- New Pedestrian Link
- Future Footpath Easement

Notes:
Cadastral and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Neamap Pty Ltd

Designed:	M. Coles	Date:	10/02/2021
Drawn:	M. Sari	Revision:	2
Checked:	A. Woinarski	Scale:	1:800 (A3)
File:	S17025_028_F006A_Soil_Exceedances		
			
Datum GDA 1994, Projection MGA Zone 56			

Figure No:

6A

Title:

Soil Exceedances – Health-Risk and Aesthetics Screening – Stage 1/Lot 3 Young Street

Project:

Remedial Action Plan

Location:

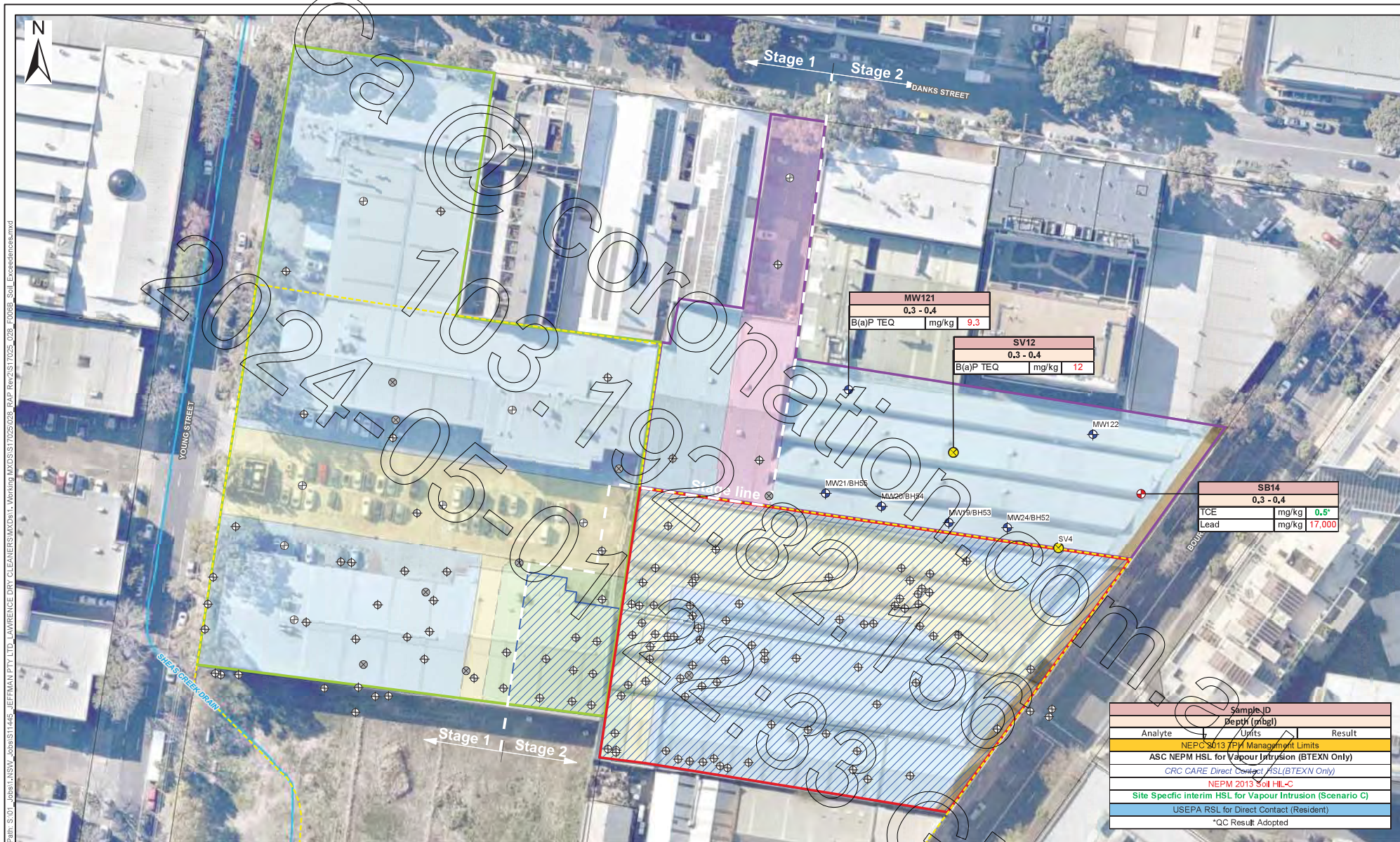
Jeffman Danks South Street Precinct

Client:

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Sample ID		
Depth (m bgl)		
Analyte	Units	Result
NEPC 2013 TPM Management Limits		
ASC NEPM HSL for Vapour Intrusion (BTEXN Only)		
CRC CARE Direct Contact HSL (BTEXN Only)		
NEPM 2013 Soil HI-C		
Site Specific Interim HSL for Vapour Intrusion (Scenario C)		
USEPA RSL for Direct Contact (Resident)		
*QC Result Adopted		



Address: Level 15, 201 Kent Street,
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Phone: (02) 9554 9016
Website: www.senversa.com.au

Legend

Stage 2 (Lot 4)

- Groundwater Well
- Soil Bore
- Soil Vapour

Offsite

- Groundwater Well
- Soil Bore
- Soil Vapour

- Remediation Site
(MO Notice Number 20111403)
- Source Site
(MO Notice Number 20154405)
- Lawrence Dry Cleaners
- Lot 3 Young Street
- Lot 4 Bourke Street
- Lot Boundary

Development Land Use

- Parcel (Mixed Use)
- New Road
- New Park (Recreation/Open Space)
- New Pedestrian Link
- Future Footpath Easement

Notes:
Cadastral and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Neimap Pty Ltd

Designed: M. Coles
Drawn: M. Sari
Checked: A. Woinarski
File: S17025_028_F006B_Soil_Exceedences

Date: 10/02/2021

Revision: 2

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Datum GDA 1994, Projection MGA Zone 56

Figure No:

Title:

Project:

Location:

Client:

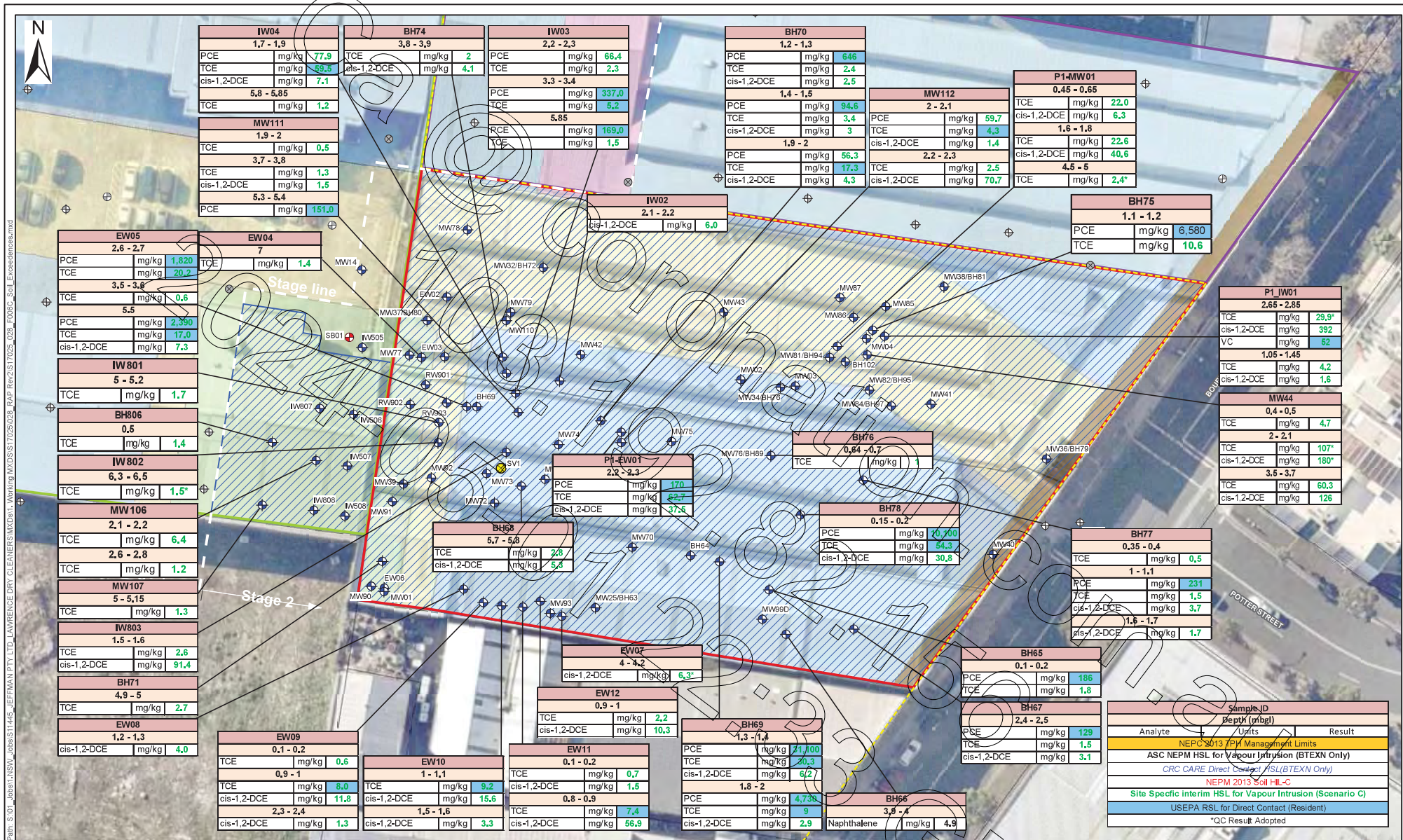
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Soil Exceedences – Health-Risk and Aesthetics
Screening – Stage 2/Lot 4 Bourke Street

Remedial Action Plan

Jeffman Danks South Street Precinct

Jeffman Pty Ltd



Address: Level15, 201 Kent Street,
Sydney NSW 2000
(02) 9554 9016
Website: www.senversa.com.au

Legend

Stage 2 Source Site

- Groundwater Well
- Soil Bore
- Soil Vapour

Offsite

- Groundwater Well
- Soil Bore
- Soil Vapour

Remediation Site

- Remediation Site (MO Notice Number 20111403)
- Source Site (MO Notice Number 20154405)

Development Land Use

- Parcel (Mixed Use)
- New Road
- New Park (Recreation/Open Space)
- New Pedestrian Link
- Future Footpath Easement

Notes:
Cadastral and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Neamap Pty Ltd

Designed:

M. Coles

Drawn:

M. Sari

Checked:

A. Woinarski

File:

S17025_028_F006C_Soil_Exceedances

Date:

10/02/2021

Revision:

2

Scale:

1:500

Figure No:

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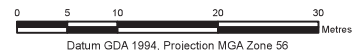
Soil Exceedances – Health-Risk and Aesthetics Screening – Stage 2/Source Site

Location:

Jeffman Danks South Street Precinct

Client:

Jeffman Pty Ltd



Datum GDA 1994, Projection MGA Zone 56

Figure No:

6C

Title:

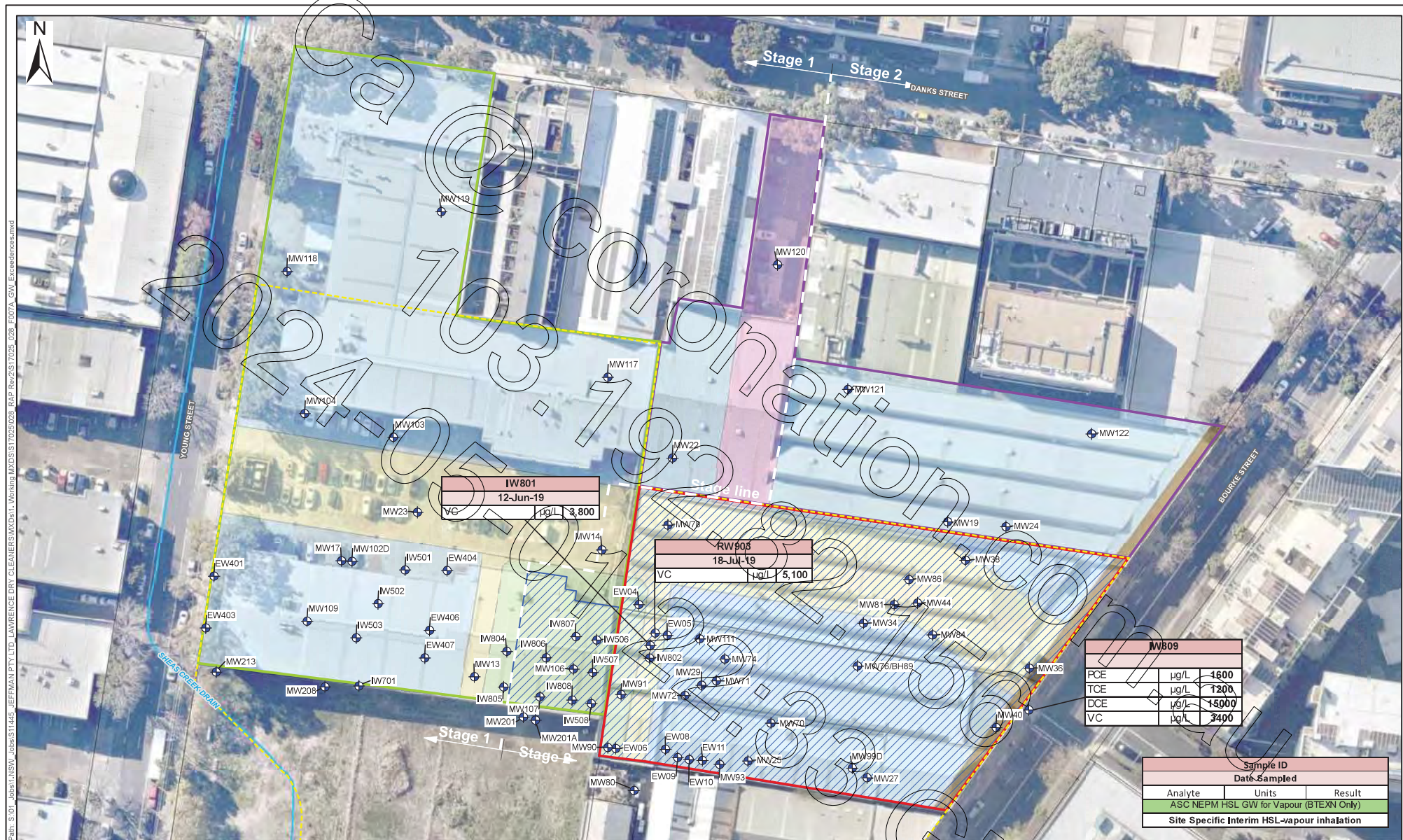
Soil Exceedances – Health-Risk and Aesthetics Screening – Stage 2/Source Site

Location:

Jeffman Danks South Street Precinct

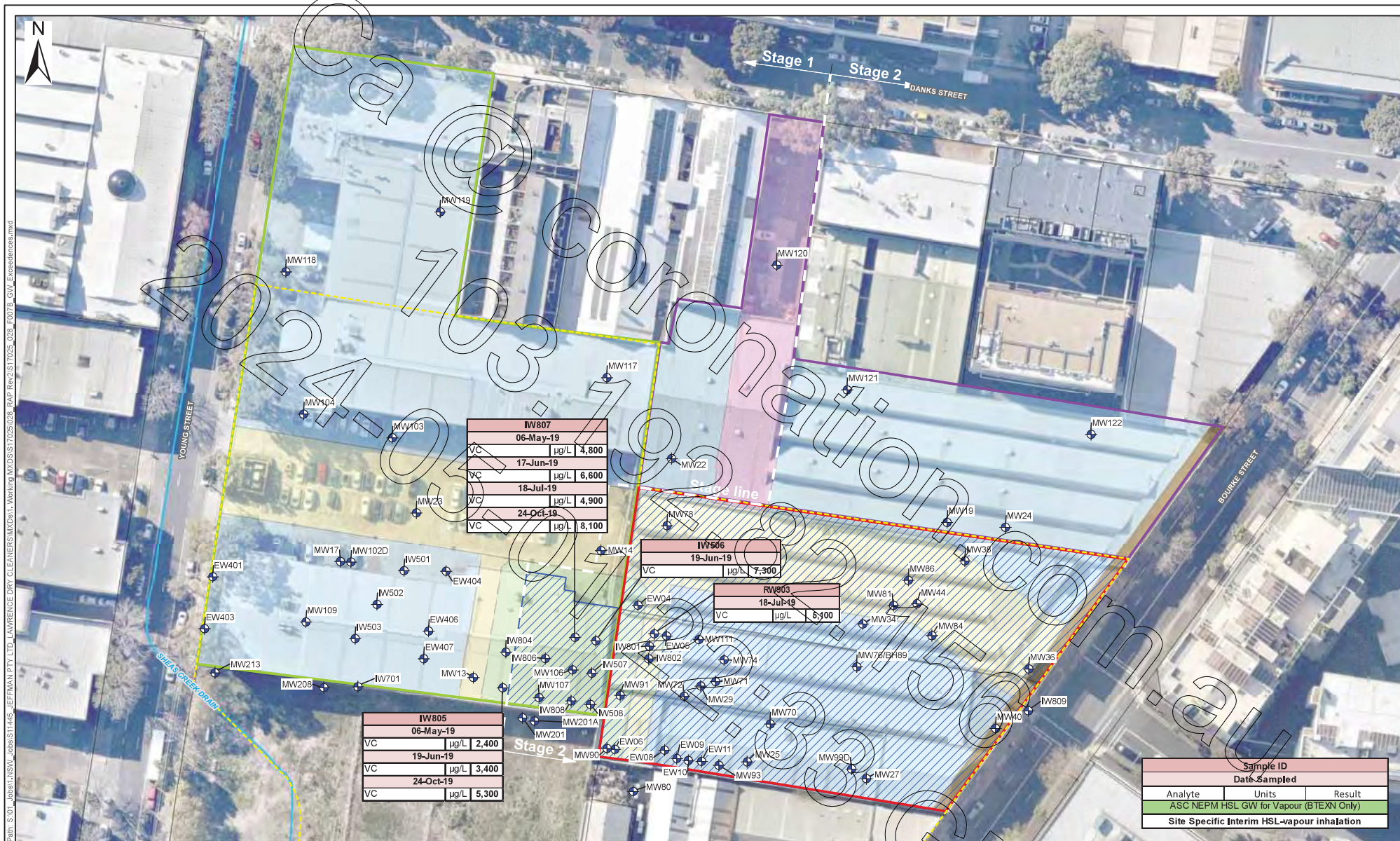
Client:

Jeffman Pty Ltd



Project: Remedial Action Plan
Location: Jeffman Danks South Street Precinct
Client: Jeffman Pty Ltd

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Address: Level 15, 201 Kent Street,
Sydney NSW 2000
Phone: (02) 9554 8016
Website: www.senversa.com.au

Legend

- Groundwater Well - Sampled
 - Remediation Site (MO Notice Number 20111403)
 - Source Site (MO Notice Number 20154405)
 - Lawrence Dry Cleaners
 - Lot 3 Young Street
 - Lot 4 Bourke Street
 - Lot Boundary
- Development Land Use**
- Parcel (Mixed Use)
 - New Road
 - New Park (Recreation/Open Space)
 - New Pedestrian Link
 - Future Footpath Easement

Notes:
Cadastral and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Neemap Pty Ltd

Designed: M. Coles
Drawn: M. Sari
Checked: A. Woinarski
File: S17025_028_F007B_GW_Exceedances

Date: 10/02/2021
Revision: 2
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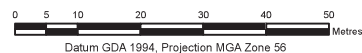


Figure No:

7B

Title:

Groundwater Exceedances – Health Risk Screening – Public Open Space (Park)

Project:

Remedial Action Plan

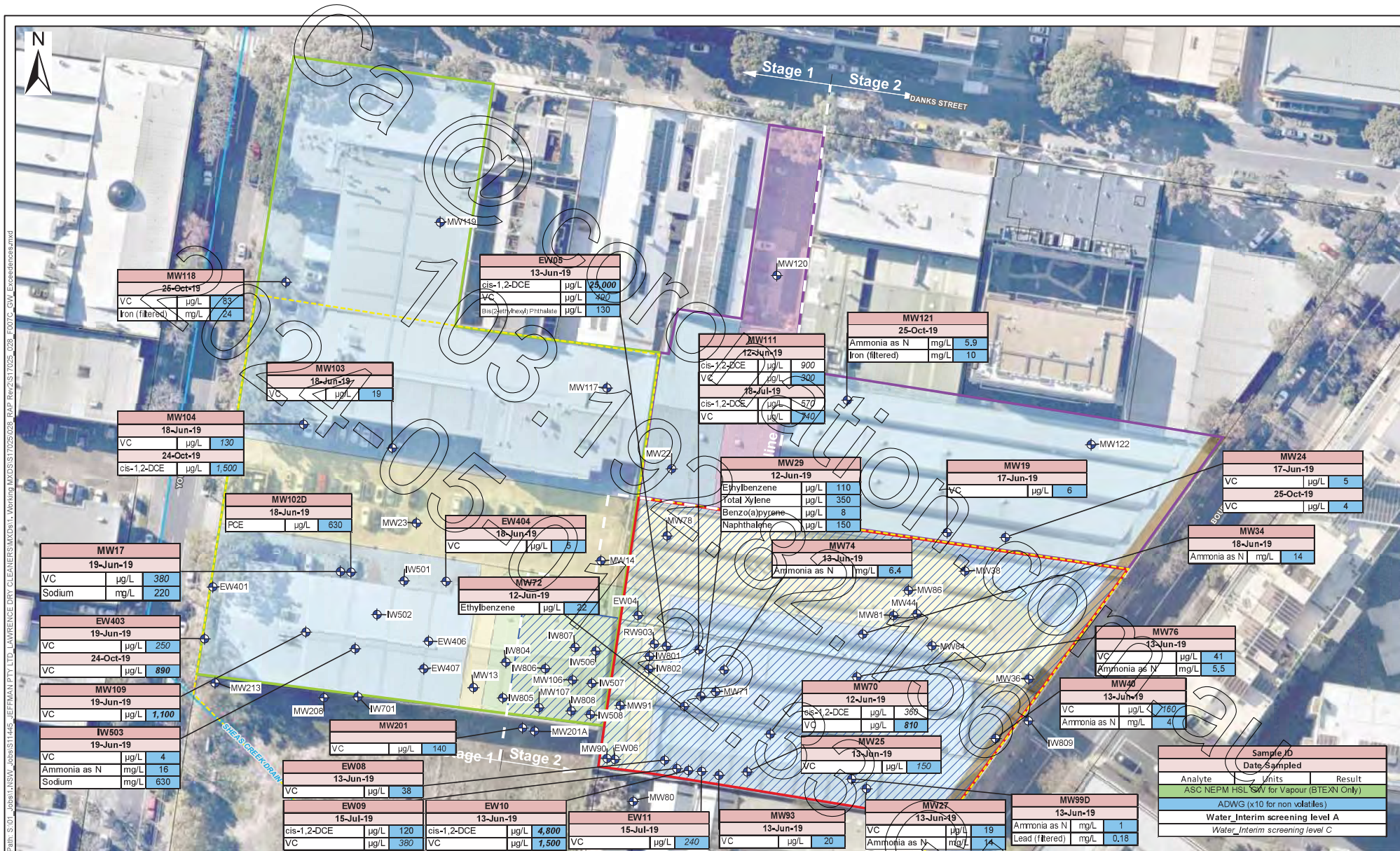
Location:

Jeffman Danks South Street Precinct

Client:

Jeffman Pty Ltd

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Sydney NSW 2000
Phone: (02) 9554 8016
Website: www.senversa.com.au

Legend

- Groundwater Well - Sampled
- Remediation Site (MO Notice Number 20111403)
- Source Site (MO Notice Number 20154405)
- Lawrence Dry Cleaners
- Lot 3 Young Street
- Lot 4 Bourke Street
- Lot Boundary

Development Land Use

- Parcel (Mixed Use)
- New Road
- New Park (Recreation/Open Space)
- New Pedestrian Link
- Future Footpath Easement

Notes:
Cadastral and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Neamp Pty Ltd

Designed: M. Coles Date: 10/02/2021

Drawn: M. Sari Revision: 2

Checked: A. Woinarski Scale: 1:800 (A3)

File: S17025_028_F007C_GW_Exceedances

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Datum GDA 1994, Projection MGA Zone 56

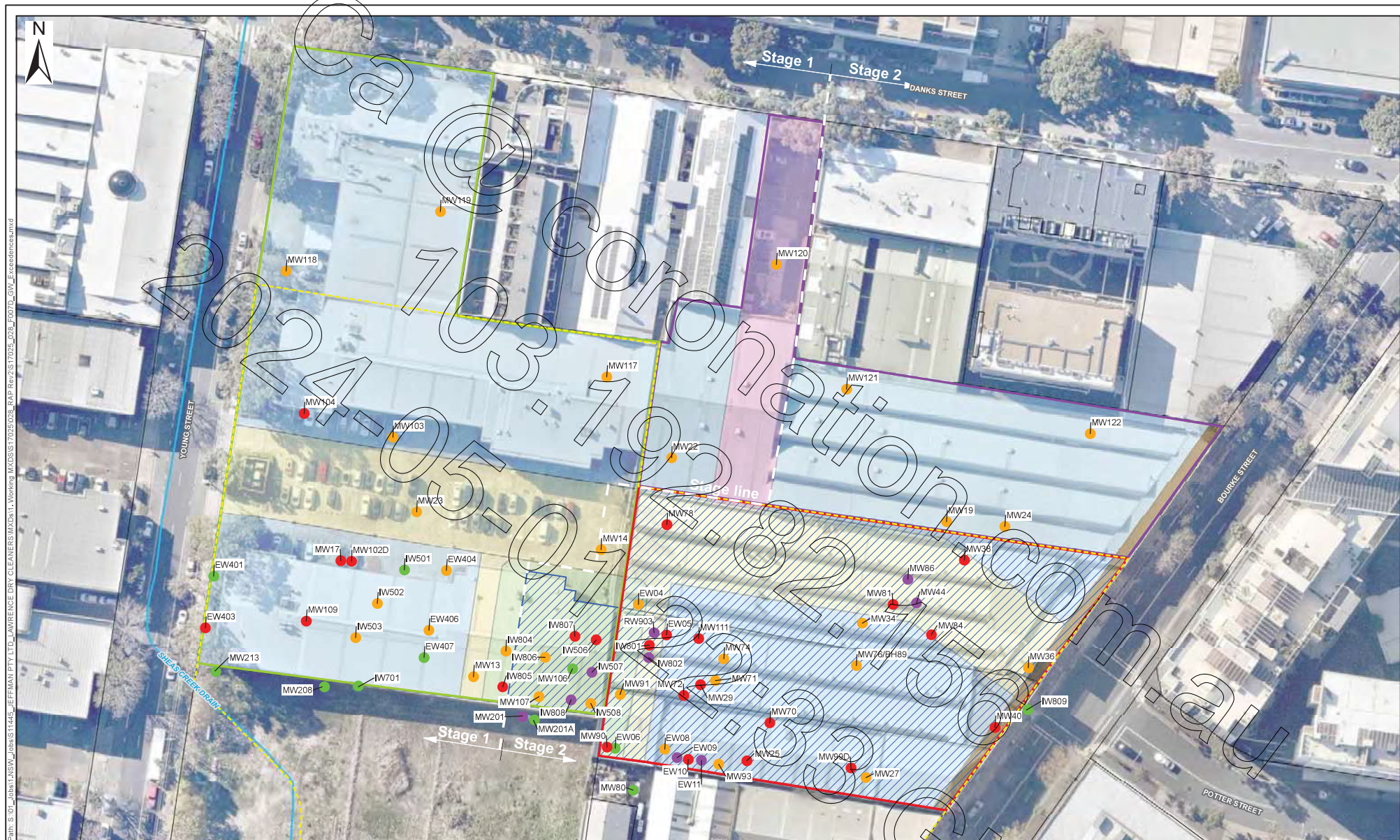
Figure No: 7C

Title: Groundwater Exceedances – Health Risk Screening – Residential/Commercial Buildings (Basements)

Project: Remedial Action Plan

Location: Jeffman Danks South Street Precinct

Client: Jeffman Pty Ltd



Legend

- No Exceedance
- Exceedance - Inorganics (Metal and/or Inorganics)
- Exceedance - Organics (CHC/MAH/PAH/Phenol/BTEX)
- Exceedance - Organics and Inorganics

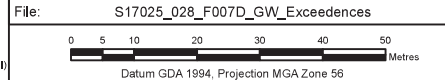
-  Remediation Site
 (MO Notice Number 20111403)
 Source Site
 (MO Notice Number 20154405)
 Lawrence Dry Cleaners
 Lot 3 Young Street
 Lot 4 Bourke Street
 Lot Boundary

Development Land Use

-  Parcel (Mixed Use)
-  New Road
-  New Park (Recreation/Open Space)
-  New Pedestrian Link
-  Future Footpath Easement

Notes:
Cadastre and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Nearmap Pty Ltd

Designed: M. Coles	Date: 10/02/2021
Drawn: M. Sari	Revision: 2
Checked: A. Woinarski	Scale: 1:800 (53)
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~~Figure No:~~

7D

Title:

Groundwater Exceedances – Ecological Risk Screening

Project.

Remedial Action Plan

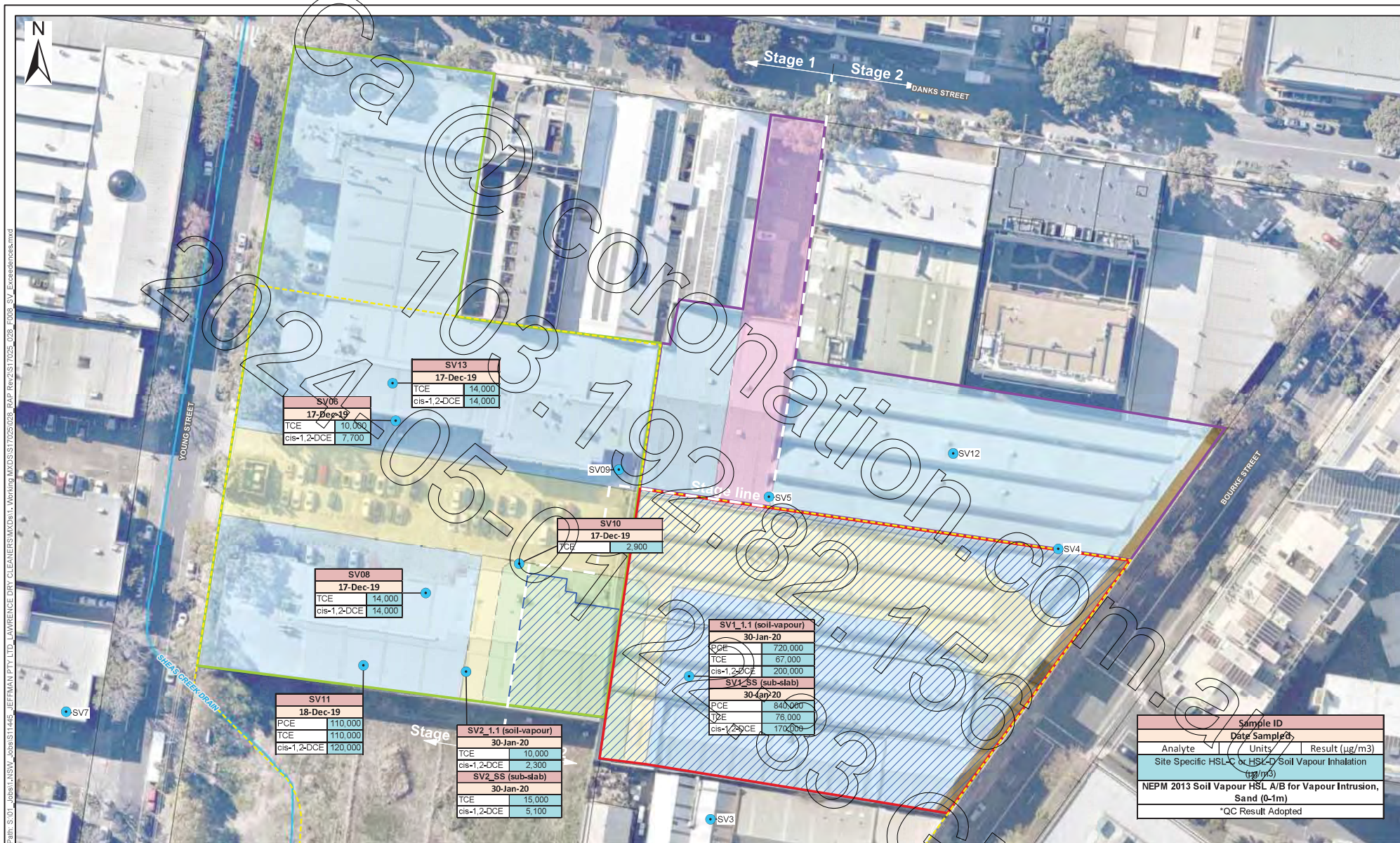
Location:

Jeffman Danks South Street Precinct

Client:

Jeffman Pty Ltd

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Address: Level 15, 201 Kent Street,
Sydney NSW 2000
Phone: (02) 9554 9016
Website: www.senversa.com.au

Legend

- Soil Vapour Sample Location
- Remediation Site
(MO Notice Number 20111403)
- Source Site
(MO Notice Number 20154405)
- Lawrence Dry Cleaners
- Lot 3 Young Street
- Lot 4 Bourke Street
- Lot Boundary

Development Land Use

- Parcel (Mixed Use)
- New Road
- New Park (Recreation/Open Space)
- New Pedestrian Link
- Future Footpath Easement

Notes:
Cadastral and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Nearmap Pty Ltd

Designed: M. Coles
Drawn: M. Sari
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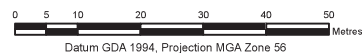


Figure No:

8

Title:

**Soil Vapour Exceedances –
Health Risk Screening**

Project:

Remedial Action Plan

Location:

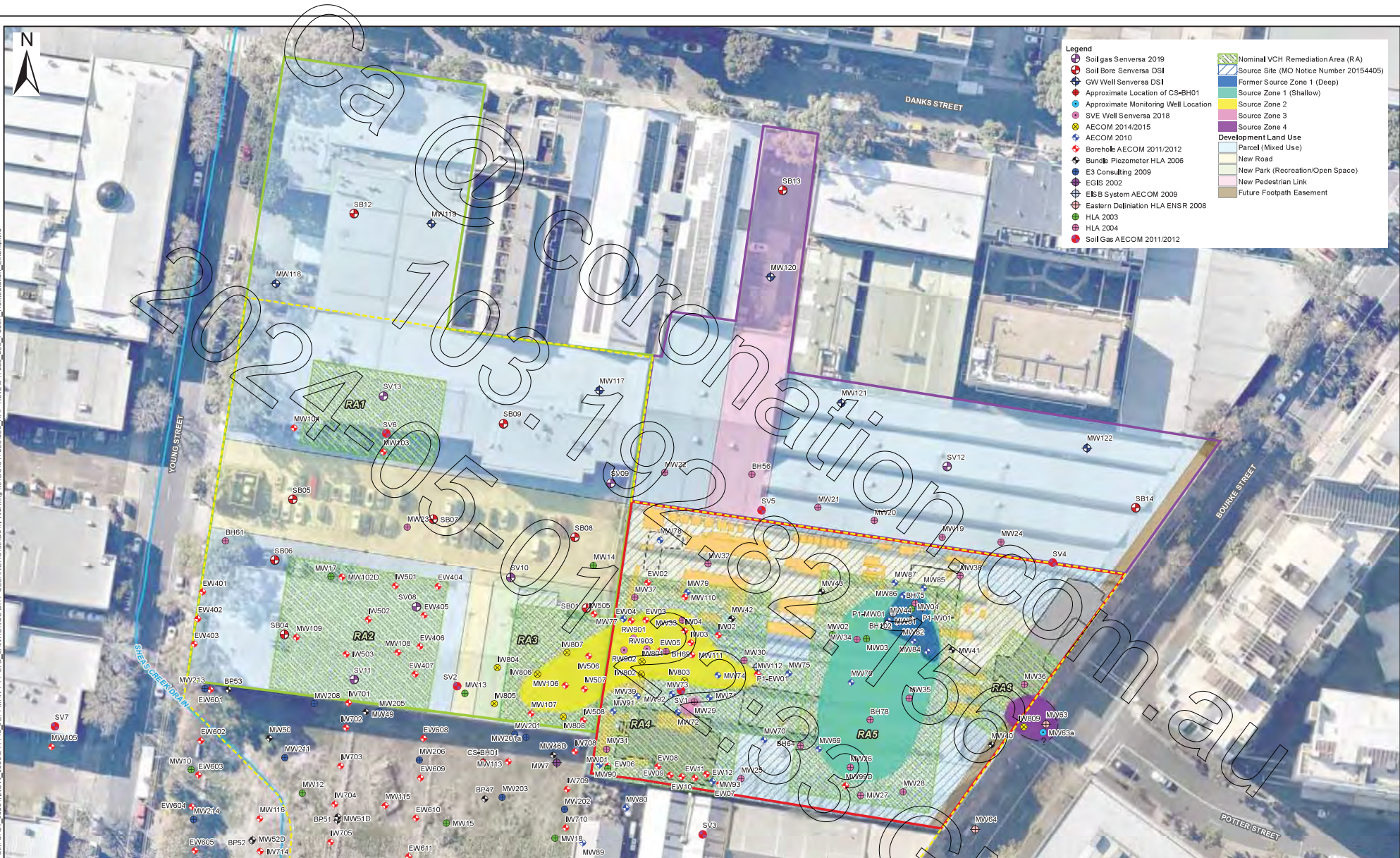
Jeffman Danks South Street Precinct

Client:

Jeffman Pty Ltd

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Path: S:\01_Job\1181W_Job\11445_Jeffman Pty Ltd_Lawrence Dry Cleaners\MXD\1_Working\MXD\S17025_028_F009A_Remediation_Extent.mxd



- Legend**
- Soil Gas Servensa 2019
 - Soil Bore Servensa DSI
 - GW Well Servensa DSI
 - Approximate Location of CS-BH01
 - Approximate Monitoring Well Location
 - SVE Well Servensa 2018
 - AECOM 2014/2015
 - AECOM 2010
 - Borehole AECOM 2011/2012
 - Bundee Piezometer HLA 2006
 - E3 Consulting 2009
 - EGIS 2002
 - ELIS B System AECOM 2009
 - Eastern Delineation HLA ENSR 2008
 - HLA 2003
 - HLA 2004
 - Soil Gas AECOM 2011/2012
 - Nominal VCH Remediation Area (RA)
 - Source Site (MO Notice Number 20154405)
 - Former Source Zone 1 (Deep)
 - Source Zone 1 (Shallow)
 - Source Zone 2
 - Source Zone 3
 - Source Zone 4
 - Development Land Use
 - Parcel (Mixed Use)
 - New Road
 - New Park (Recreation/Open Space)
 - New Pedestrian Link
 - Future Footpath Easement



Address: Level 5, 201 Kent Street,
Sydney NSW 2000
(02) 9994 8016
Website: www.senversa.com.au

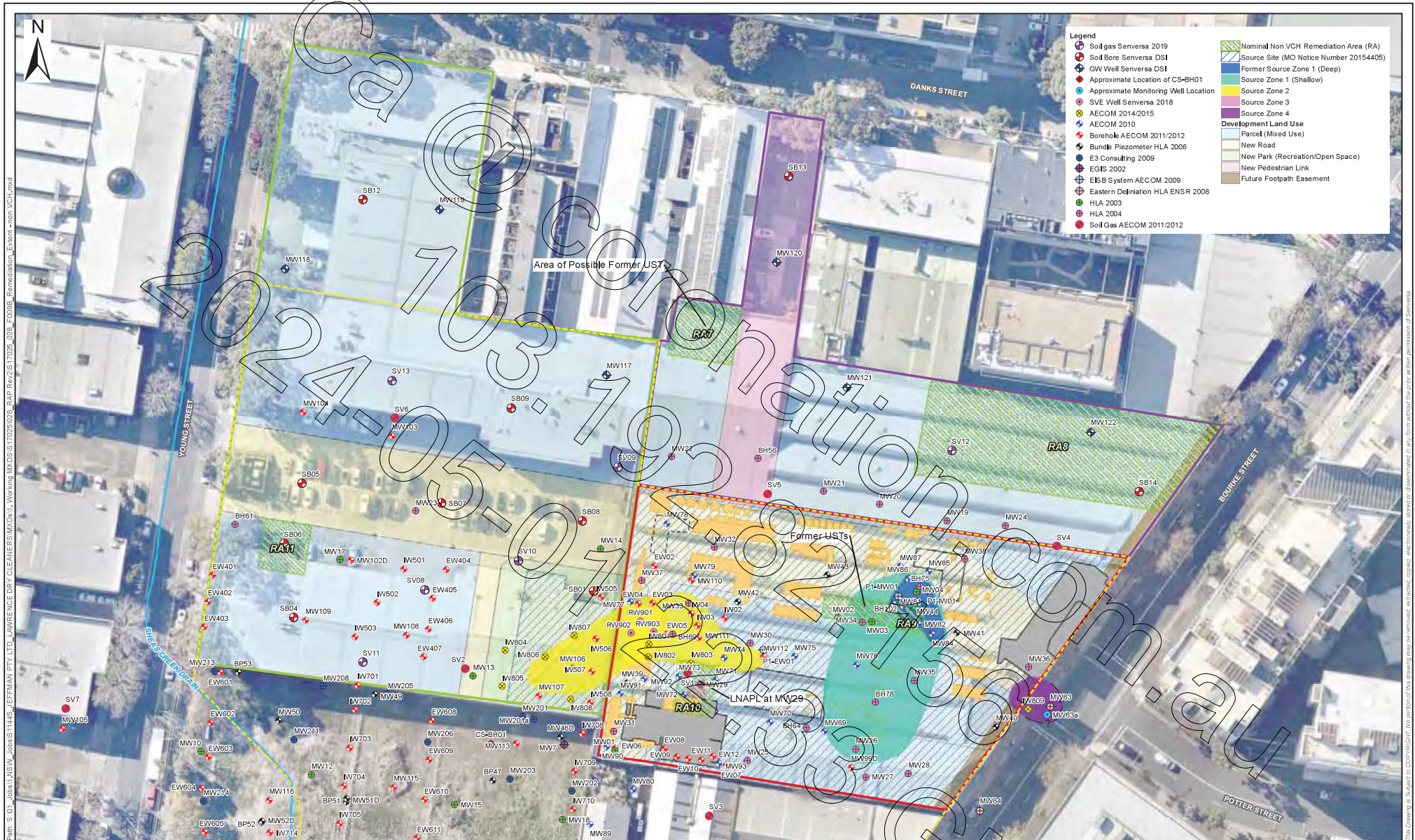
Notes:
Cadastre and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Neamap Pty Ltd

Designed:	M. Coles	Date:	16/02/2021
Drawn:	M. Sari	Revision:	2
Checked:	A. Woinarski	Scale:	1:800 (A3)
File:	S17025_028_F009A_Remediation_Extent		

0 10 20 30 40 50 Metres
Datum GDA 1984, Projection MGA Zone 56

Figure No:	9A
Title:	Inferred Remediation Extent (VCH)
Project:	Remedial Action Plan
Location:	Jeffman Danks South Street Precinct
Client:	Jeffman Pty Ltd

Path: S:\01_Job\1\81W_Job\11445_Jeffman Pty Ltd_Lawrence Dry Cleaners\MXD\1_Working\MXD\817025_028_F009B_Remediation_Extent - non VCH.mxd



- Legend**
- Soil Gas Servensa 2019
 - Soil Bore Servensa DSI
 - GW Well Servensa DSI
 - Approximate Location of CS-BH01
 - Approximate Monitoring Well Location
 - SVE Well Servensa 2018
 - AECOM 2014/2015
 - AECOM 2010
 - Borehole AECOM 2011/2012
 - Bundle Piezometer HLA 2006
 - E3 Consulting 2009
 - EGIS 2002
 - ELIS B System AECOM 2009
 - Eastern Delineation HLA ENSR 2008
 - HLA 2003
 - HLA 2004
 - Soil Gas AECOM 2011/2012
 - Nominal Non VCH Remediation Area (RA)
 - Source Site (MO Notice Number 20154405)
 - Former Source Zone 1 (Deep)
 - Source Zone 1 (Shallow)
 - Source Zone 2
 - Source Zone 3
 - Source Zone 4
 - Development Land Use
 - Parcel (Mixed Use)
 - New Road
 - New Park (Recreation/Open Space)
 - New Pedestrian Link
 - Future Footpath Easement



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Website: www.senversa.com.au

Notes:
Cadastre and road data sourced from www.lpi.nsw.gov.au (LPI)
Aerial imagery (05/09/2015) sourced from Neamap Pty Ltd

Designed:	M. Coles	Date:	16/02/2021
Drawn:	M. Sari	Revision:	2
Checked:	A. Woinarski	Scale:	1:800 (A3)
File:	S17025_028_F009B_Remediation_Extent - non VCH		

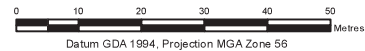


Figure No: 9B
Title: Inferred Remediation Extent (Non-VCH)

Project: Remedial Action Plan
Location: Jeffman Danks South Street Precinct
Client: Jeffman Pty Ltd

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Tables (after DSI, Senversa Feb 2021)

Table 1: Master Bore List

Table 2A: Soil Analytical Results – Residential/Commercial

Table 2B: Soil Analytical Results – Open Space

Table 2C: Soil Analytical Results – Roads

Table 2D: Soil Analytical Results – Ecological

Table 2E: Soil Analytical Results – Asbestos

Table 2F: Analytical Results – Soil Leachability

Table 3A: Groundwater Gauging and Survey Data

Table 3B: Groundwater Physiochemical Parameters

Table 3C: Groundwater Analytical Results – Residential/Commercial

Table 3D: Groundwater Analytical Results – Open Space/Roads

Table 3E: Groundwater Analytical Results – Ecological

Table 3F: Groundwater Analytical Results – Management Order

Table 4A: Soil Vapour Analytical Results – Residential/Commercial

Table 4B: Soil Vapour Analytical Results – Open Space/Roads

Table 1: Master Bore List

S17025, Jeffman Development DSI
Lawrence Dry Cleaners, 887 Bourke St, Waterloo, NSW
Jeffman

Master Well/Bore Locations				
Location	Monitoring Zone	Area	DA Stage	Proposed Land Use
BH52	Lot 4 Bourke Street	Parcel 2	Stage 2	Commercial/residential
BH53	Lot 4 Bourke Street	Parcel 2	Stage 2	Commercial/residential
BH54	Lot 4 Bourke Street	Parcel 2	Stage 2	Commercial/residential
BH55	Lot 4 Bourke Street	Parcel 2	Stage 2	Commercial/residential
BH56	Lot 4 Bourke Street	Road	Stage 2	Road/pedestrian link
BH58	Lot 4 Bourke Street	Parcel 5	Stage 2	Commercial/residential
BH61	Young Street Property	Parcel 4	Stage 1	Commercial/residential
BH62	Young Street Property	Road	Stage 1	Road/pedestrian link
BH63	LDC	Parcel 3	Stage 2	Commercial/residential
BH64	LDC	Parcel 3	Stage 2	Commercial/residential
BH65	LDC	Parcel 3	Stage 2	Commercial/residential
BH66	LDC	Parcel 3	Stage 2	Commercial/residential
BH67	LDC	Parcel 3	Stage 2	Commercial/residential
BH68	LDC	Parcel 3	Stage 2	Commercial/residential
BH69	LDC	Parcel 3	Stage 2	Commercial/residential
BH7	LDC	-	-	-
BH70	LDC	Parcel 3	Stage 2	Commercial/residential
BH71	LDC	Park	Stage 2	Open Space
BH72	LDC	Road	Stage 2	Road/pedestrian link
BH74	LDC	Parcel 3	Stage 2	Commercial/residential
BH75	LDC	Road	Stage 2	Road/pedestrian link
BH76	LDC	Parcel 3	Stage 2	Commercial/residential
BH77	LDC	Parcel 3	Stage 2	Commercial/residential
BH78	LDC	Parcel 3	Stage 2	Commercial/residential
BH79	LDC	Road	Stage 2	Road/pedestrian link
BH80	LDC	Park	Stage 2	Open Space
BH804	Young Street Property	Park	Stage 2	Open Space
BH805	Young Street Property	Park	Stage 2	Open Space
BH806	Young Street Property	Park	Stage 2	Open Space
BH807	Young Street Property	Park	Stage 2	Open Space
BH81	LDC	Road	Stage 2	Road/pedestrian link
BH89	LDC	Parcel 3	Stage 2	Commercial/residential
BH94	LDC	Road	Stage 2	Road/pedestrian link
BH95	LDC	Parcel 3	Stage 2	Commercial/residential
BH97	LDC	Parcel 3	Stage 2	Commercial/residential
EW02	LDC	Road	Stage 2	Road/pedestrian link
EW03	LDC	Road	Stage 2	Road/pedestrian link
EW04	LDC	Park	Stage 2	Open Space
EW05	LDC	Parcel 3	Stage 2	Commercial/residential
EW06	LDC	Park	Stage 2	Open Space
EW07	LDC	Parcel 3	Stage 2	Commercial/residential
EW08	LDC	Parcel 3	Stage 2	Commercial/residential
EW09	LDC	Parcel 3	Stage 2	Commercial/residential
EW10	LDC	Parcel 3	Stage 2	Commercial/residential
EW11	LDC	Parcel 3	Stage 2	Commercial/residential
EW12	LDC	Parcel 3	Stage 2	Commercial/residential
EW401	Young Street Property	Parcel 4	Stage 1	Commercial/residential
EW402	Young Street Property	Parcel 4	Stage 1	Commercial/residential
EW403	Young Street Property	Parcel 4	Stage 1	Commercial/residential
EW404	Young Street Property	Parcel 4	Stage 1	Commercial/residential
EW405	Young Street Property	Parcel 4	Stage 1	Commercial/residential
EW406	Young Street Property	Parcel 4	Stage 1	Commercial/residential
EW407	Young Street Property	Parcel 4	Stage 1	Commercial/residential
IW02	LDC	Parcel 3	Stage 2	Commercial/residential
IW03	LDC	Parcel 3	Stage 2	Commercial/residential
IW04	LDC	Parcel 3	Stage 2	Commercial/residential
IW501	Young Street Property	Parcel 4	Stage 1	Commercial/residential
IW502	Young Street Property	Parcel 4	Stage 1	Commercial/residential
IW503	Young Street Property	Parcel 4	Stage 1	Commercial/residential
IW504X	Young Street Property	-	-	-
IW505	Young Street Property	Park	Stage 2	Open Space
IW506	Young Street Property	Park	Stage 2	Open Space
IW507	Young Street Property	Park	Stage 2	Open Space
IW508	Young Street Property	Park	Stage 2	Open Space
IW801	LDC	Road	Stage 2	Road/pedestrian link
IW802	LDC	Road	Stage 2	Road/pedestrian link
IW803	LDC	Parcel 3	Stage 2	Commercial/residential
IW804	Young Street Property	Park	Stage 2	Open Space
IW805	Young Street Property	Park	Stage 2	Open Space
IW806	Young Street Property	Park	Stage 2	Open Space
IW807	Young Street Property	Park	Stage 2	Open Space
IW808	Young Street Property	Park	Stage 2	Open Space
MW102D	Young Street Property	Parcel 4	Stage 1	Commercial/residential
MW103	Young Street Property	Parcel 1	Stage 1	Commercial/residential
MW104	Young Street Property	Parcel 1	Stage 1	Commercial/residential
MW106	Young Street Property	Park	Stage 2	Open Space
MW107	Young Street Property	Park	Stage 2	Open Space

Table 1: Master Bore List

S17025, Jeffman Development DSI
Lawrence Dry Cleaners, 887 Bourke St, Waterloo, NSW
Jeffman



Master Well/Bore Locations				
Location	Monitoring Zone	Area	DA Stage	Proposed Land Use
BH52	Lot 4 Bourke Street	Parcel 2	Stage 2	Commercial/residential
BH53	Lot 4 Bourke Street	Parcel 2	Stage 2	Commercial/residential
BH54	Lot 4 Bourke Street	Parcel 2	Stage 2	Commercial/residential
MW108	Young Street Property	Parcel 4	Stage 1	Commercial/residential
MW109	Young Street Property	Parcel 4	Stage 1	Commercial/residential
MW110	LDC	Parcel 3	Stage 2	Commercial/residential
MW111	LDC	Parcel 3	Stage 2	Commercial/residential
MW112	LDC	Parcel 3	Stage 2	Commercial/residential
MW117	Lot 3	Parcel 1	Stage 1	Commercial/residential
MW118	Lot 3	Parcel 1	Stage 1	Commercial/residential
MW119	Lot 3	Parcel 1	Stage 1	Commercial/residential
MW120	Lot 4 Bourke St	Pedestrian Link	Stage 2	Road/pedestrian link
MW121	Lot 4 Bourke St	Parcel 2	Stage 2	Commercial/residential
MW122	Lot 4 Bourke St	Parcel 2	Stage 2	Commercial/residential
MW13	Young Street Property	Parcel 4	Stage 1	Commercial/residential
MW14	Young Street Property	Road	Stage 2	Road/pedestrian link
MW17	Young Street Property	Parcel 4	Stage 1	Commercial/residential
MW19	Lot 4 Bourke Street	Parcel 2	Stage 2	Commercial/residential
MW22	Lot 4 Bourke Street	Parcel 5	Stage 2	Commercial/residential
MW23	Young Street Property	Road	Stage 1	Road/pedestrian link
MW24	Lot 4 Bourke Street	Parcel 2	Stage 2	Commercial/residential
MW25	LDC	Parcel 3	Stage 2	Commercial/residential
MW27	LDC	Parcel 3	Stage 2	Commercial/residential
MW28	LDC	Parcel 3	Stage 2	Commercial/residential
MW29	LDC	Parcel 3	Stage 2	Commercial/residential
MW34	LDC	Parcel 3	Stage 2	Commercial/residential
MW36	LDC	Road	Stage 2	Road/pedestrian link
MW38	LDC	Road	Stage 2	Road/pedestrian link
MW40	LDC	Parcel 3	Stage 2	Commercial/residential
MW41	LDC	Road	Stage 2	Road/pedestrian link
MW42	LDC	Parcel 3	Stage 2	Commercial/residential
MW43	LDC	Road	Stage 2	Road/pedestrian link
MW44	LDC	Road	Stage 2	Road/pedestrian link
MW70	LDC	Parcel 3	Stage 2	Commercial/residential
MW71	LDC	Parcel 3	Stage 2	Commercial/residential
MW72	LDC	Parcel 3	Stage 2	Commercial/residential
MW74	LDC	Parcel 3	Stage 2	Commercial/residential
MW76	LDC	Parcel 3	Stage 2	Commercial/residential
MW78	LDC	Road	Stage 2	Road/pedestrian link
MW81	LDC	Road	Stage 2	Road/pedestrian link
MW84	LDC	Parcel 3	Stage 2	Commercial/residential
MW86	LDC	Road	Stage 2	Road/pedestrian link
MW90	LDC	Park	Stage 2	Open Space
MW91	LDC	Park	Stage 2	Open Space
MW93	LDC	Parcel 3	Stage 2	Commercial/residential
MW99D	LDC	Parcel 3	Stage 2	Commercial/residential
P1-EW01	LDC	Parcel 3	Stage 2	Commercial/residential
P1-IW01	LDC	Road	Stage 2	Road/pedestrian link
P1-MW01	LDC	Road	Stage 2	Road/pedestrian link
RW903	LDC	Road	Stage 2	Road/pedestrian link
SB01	Young Street Property	Park	Stage 2	Open Space
SB04	Young Street Property	Parcel 4	Stage 1	Commercial/residential
SB05	Young Street Property	Road	Stage 1	Road/pedestrian link
SB06	Young Street Property	Parcel 4	Stage 1	Commercial/residential
SB07	Young Street Property	Road	Stage 1	Road/pedestrian link
SB08	Young Street Property	Road	Stage 1	Road/pedestrian link
SB09	Young Street Property	Parcel 1	Stage 1	Commercial/residential
SB12	Young Street Property	Parcel 1	Stage 1	Commercial/residential
SB13	Lot 4 Bourke St	Pedestrian	Stage 2	Road/pedestrian link
SB14	Lot 4 Bourke St	Parcel 2	Stage 2	Commercial/residential
SG4	Lot 4 Bourke Street	Parcel 2	Stage 2	Commercial/residential
SG5	Lot 4 Bourke Street	Pedestrian	Stage 2	Road/pedestrian link
SG6	Young Street Property	Parcel 4	Stage 1	Commercial/residential
SV02	Lot 3	Road	Stage 1	Road/pedestrian link
SV06	Lot 3	Parcel 1	Stage 1	Commercial/residential
SV08	Lot 3	Parcel 4	Stage 1	Commercial/residential
SV09	Lot 3	Parcel 5	Stage 2	Commercial/residential
SV10	Lot 3	Road	Stage 2	Open Space
SV11	Lot 3	Parcel 4	Stage 1	Commercial/residential
SV12	Lot 3	Parcel 2	Stage 2	Commercial/residential
SV13	Lot 4	Parcel 1	Stage 1	Commercial/residential
SV2	LDC	Parcel 3	Stage 2	Commercial/residential
SV5	Lot 4	Pedestrian	Stage 2	Road/pedestrian link
SV4	Lot 4	Parcel 2	Stage 2	Commercial/residential

3 of 108

4 of 108

5 of 108

6 of 108

7 of 108

8 of 108

9 of 108

10 of 108

Comments

1) Aromatic Hs assumes 70% oral bioavailability. Stereosepecific bioavailability maybe important and should be considered where appropriate (ref. Shinde087).

2) A, B, C, D, E, F, G based on 100% oral model (B/C/D) and 10% oral model (E/F/G) are considered. Stereosepecific bioavailability should be considered where appropriate.

3) Elemental molecular Hs, does not address elemental Hs, (i.e. specific enantiomer) but considering if elemental molecular is each, or each enantiomer.

4) Carcinogenicity PAHs, based on 8 carcin. PAHs that are TEFs (ref. BaP ref. Shinde 7) BaP TEGs can be multiplied by the conec of each carcin. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing

5) Total PAHs: Based on sum of 16 most common reported (WHO 68). Hs application should consider persistence of carcinogenic PAHs (should meet relevant Hs PAH). Naphthalene should be relevant Hs PAH.

6) Derived Hs: Based on sum of 16 most common reported (WHO 68). Hs application should consider persistence of carcinogenic PAHs (should meet relevant Hs PAH). Naphthalene should be relevant Hs PAH.

7) Derived Sol Hs, exceeds soil saturation concentration.

#1 Arsenic: HSL assumes 70% oral bioavailability. Site-specific bioavailability may be important and should be considered.
 #2 Lead: HSLs A,B,C based on blood lead levels (DEUKB & HIL) on an adult lead model for where 50% bioavailability.
 #3 Elemental mercury: HIL does not address elemental mercury. A site-specific assessment should be considered.
 #4 Carcinogenic PAHs: HIL based on 8 car. PAHs and their TEFs (ref. to BaP ref. Schedule 7) BaP TEF cal by weight.
 #5 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of PCBs.
 #6 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific derived soil HSL exceeds soil saturation concentration.

Comments

#1 Arsenic: HLL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered.
#2 Lead: HLL A,B,C based on blood lead levels (ELMUR & HLL). D on adult lead model for where 50% bioavailable
#3 Elemental mercury: HLL does not address elemental mercury. Site specific assessment should be considered
#4 Carcinogenic PAHs: HLL based on 6 CACs, PAHs and their TEFs (not to BAP (see Schedule 7) BaP TEF; call by ms.
#5 Total PAHs: Based on sum of 16 most common reported (WHO 98), HLL application should consider presence
#6 PCBs: HLL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific
#7 Derived soil HSL exceeds soil saturation concentration

#1 Arsenic: HLL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered.
 #2 Lead: LBS A,B,C based on blood lead levels (EUBS & HLL). D on adult lead model for where 50% bioavailable
 #3 Elemental mercury: HLL does not address elemental mercury, a site specific assessment should be considered
 #4 Carcinogenic PAHs: HLL based on 6 car. PAHs & their TEFs (in to BaP of Schedule 7) BaP TEQ can be used.
 #5 Total PAHs: Based on sum of 18 most common reported (WHO 69). HLL application should consider presence
 #6 PCBs: HLL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-spec
 #7 Derived soil HSL exceeds soil saturation concentration

Comments

#1 Aromatic HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered.

#2 Lead LHS A.B.C based on blood lead levels (EUBK & HIL) on an adult lead model for where 50% bioavailability.

#3 Elemental mercury HIL does not address elemental mercury, a site specific assessment should be considered.

#4 Carcinogenic PAHs HIL based on 6 narc. PAHs & their TEFs (in the BaP of Schedule 7). BaP TEQ calc by sum.

#5 Total PAHs based on sum of 16 most common compounds (WHO 98). HIL application should consider persistence.

#6 PCBs HIL refers to non-dioxin like PCBs only, where PCB source is known, or suspected at a site, a site-specific.

#7 Derived soil HSL exceeds soil saturation concentration.

Comments

#1 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability may be important and should be considered.

#2 Lead: HILs A,B,C based on blood lead models (BUEB & HIL D on adult lead model for where 50% bioavailability).

#3 Elemental mercury: HIL does not address elemental mercury; a site specific assessment should be considered.

#4 Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (ref to BaP ref Schedule 7) BaP TEQ calc by m.

#5 Total PAHs: Based on sum of 16 most common reported (WHO 69). HIL application should consider presence of PCBs; HIL refers to non-dioxin-like PCBs only. Where PCB source is known, or suspected at a site, a site-specific TEQ should be used.

#7 Derived soil HSL exceeds soil saturation concentration.

Comments

#1 Arsenic: HSL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered.
#2 Lead: HSL A,B,C based on blood lead levels (ELMUK 3 H.L.D. on adult lead model for where 50% bioavailable)
#3 Elemental mercury: HSL does not address elemental mercury. Site specific assessment should be considered
#4 Carcinogenic PAHs: HSL based on 6 CACs, PAHs and their TEFs (not to BAP per Schedule 7) B7 TEFs call by ms.
#5 Total PCBs: Based on sum of 16 most common reported (WHO 98), HSL application should consider presymptoms
#6 PCBs: HSL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific
#7 Derived soil HSL exceeds soil saturation concentration

#1 Arsenic: HSL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered.
 #2 Lead: HSLs A,B,C based on blood lead levels (REHSK B,D) on an adult lead model for where 50% bioavailability.
 #3 Elemental mercury: HSL does not address elemental mercury. A site specific assessment should be considered.
 #4 Carcinogenic PAHs: HSL based on 6 C, 6Hs, and their TEFs (ref to BaP of Schedule 7) BaP TEQ eq by mass.
 #5 Total PAHs: Based on sum of 16 most common reported (WHO 98), HSL application should consider presence.
 #6 PCBs: HSL refers to non-dioxin like PCBs only, where PCB source is known, or suspected at a site, a site-specific.
 #7 Derived soil HSL exceeds soil saturation concentration

Comments

#1 Arsenic: HSL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered.
#2 Lead: HSL A,B,C based on blood lead levels (ELMUK 3 H.L.D. on adult lead model for where 50% bioavailable)
#3 Elemental mercury: HSL does not address elemental mercury. Site specific assessment should be considered
#4 Carcinogenic PAHs: HSL based on 6 CACs, PAHs and their TEFs (not to BAP per Schedule 7) BaP TEF cap by ms.
#5 Total PCBs: Based on sum of 16 most common reported (WHO 98), HSL application should consider presence
#6 PCBs: HSL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific
#7 Derived soil HSL exceeds soil saturation concentration

[illegible]

Comments

#1 Derived soil HSL exceeds soil saturation concentration

#2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability may be important and should be considered where appropriate (refer Shedd B7).

#3 Lead: HILs A,B,C based on blood lead models (EUBB & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.

#4 Elemental mercury: HIL does not address elemental mercury, a site specific assessment should be considered if elemental mercury is present, or suspected to be present.

#5 Carcinogenic PAHs: HIL based on 8 carcin. PAHs & their TEFs (re to BaP ref Schedule 7) BaP TEQ calc'd by multiplying the conc of each carcin. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing