

## Environment Protection Licence Monitoring Data

Project name:	WestConnex – New M5		
Licensee	CPB Contractors Pty Limited		
Monitoring period	May 2020		
Website:	<a href="https://www.westconnex.com.au/NewM5Environment">https://www.westconnex.com.au/NewM5Environment</a>		
Environment Protection licences:	20772	4627	21351
Premise addresses	WestConnex New M5, between Beverly Hills and St Peters, Beverly Hills NSW 2209	New M5 St Peters Interchange, 10-16 Albert Street, St Peters NSW 2044	Operational Water Treatment Plant M8 – Motorway Operations Complex 3 Arncliffe NSW 2205

### Monitoring Type: Water Discharge Monitoring (4627 and 20772)

Discharge/Monitoring Point	Date sampled	Total suspended solids		pH		Oil & Grease		Monitoring frequency	Comment
		Licence limit	Result *	Licence limit	Result	Licence limit	Result		
Sediment Basin SPI-4	1/05/2020	50	25	6.5-8.5	7.7	None visible	None	Each discharge	Compliant
Sediment Basin SPI-4	4/05/2020	50	30	6.5-8.5	8.3	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	4/05/2020	50	0.2	6.5-8.5	6.67	None visible	None	Each discharge	Compliant
Sediment Basin SPI-4	5/05/2020	50	35	6.5-8.5	6.7	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	5/05/2020	50	0.35	6.5-8.5	6.8	None visible	None	Each discharge	Compliant
Sediment Basin SPI-4	6/05/2020	50	20	6.5-8.5	6.7	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	6/05/2020	50	0.4	6.5-8.5	6.8	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	7/05/2020	50	18	6.5-8.5	7.1	None visible	None	Each discharge	Compliant
Sediment Basin SPI-4	8/05/2020	50	30	6.5-8.5	6.7	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	8/05/2020	50	7.55	6.5-8.5	7.08	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	9/05/2020	50	8.1	6.5-8.5	6.67	None visible	None	Each discharge	Compliant

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Discharge/Monitoring Point	Date sampled	Total suspended solids		pH		Oil & Grease		Monitoring frequency	Comment
		Licence limit	Result *	Licence limit	Result	Licence limit	Result		
Water Treatment Plant ARN-2	10/05/2020	50	11.4	6.5-8.5	6.91	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	11/05/2020	50	18.86	6.5-8.5	6.58	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	12/05/2020	50	14.6	6.5-8.5	6.98	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	13/05/2020	50	14.2	6.5-8.5	6.5	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	14/05/2020	50	7.6	6.5-8.5	7.52	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	15/05/2020	50	17	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	16/05/2020	50	6.7	6.5-8.5	7.5	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	17/05/2020	50	6	6.5-8.5	7.6	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	18/05/2020	50	7.7	6.5-8.5	6.8	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	19/05/2020	50	8	6.5-8.5	7.9	None visible	None	Each discharge	Compliant
Sediment Basin SPI-4	20/05/2020	50	45	6.5-8.5	8.4	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	20/05/2020	50	7.7	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	21/05/2020	50	9	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	22/05/2020	50	10	6.5-8.5	7.08	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	23/05/2020	50	8.31	6.5-8.5	6.93	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	24/05/2020	50	10	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	25/05/2020	50	6.1	6.5-8.5	7.2	None visible	None	Each discharge	Compliant

## Environment Protection Licence Monitoring Data

Discharge/Monitoring Point	Date sampled	Total suspended solids		pH		Oil & Grease		Monitoring frequency	Comment
		Licence limit	Result *	Licence limit	Result	Licence limit	Result		
Sediment Basin SPI-4	26/05/2020	50	10	6.5-8.5	7.7	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	26/05/2020	50	10	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	27/05/2020	50	10	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	28/05/2020	50	10	6.5-8.5	7.6	None visible	None	Each discharge	Compliant
Sediment Basin SPI-4	29/05/2020	50	30	6.5-8.5	7.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	29/05/2020	50	6.6	6.5-8.5	7.84	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	30/05/2020	50	7.09	6.5-8.5	7.3	None visible	None	Each discharge	Compliant

\* A correlation between TSS and Turbidity has been established. Including a safety factor, the turbidity limit is 50NTU.

## Environment Protection Licence Monitoring Data

### Monitoring Type: Water Discharge Monitoring (21351)

Environment protection licence 21351 was issued by the EPA on 30/04/2020 for the operational water treatment plant at Motorway Operations Complex 3 (Arncliffe). Discharge commenced in May 2020 and a grab sample was collected on 26 May for laboratory analysis (ES2018227-001: results tabulated below). A Sampling and Analyte plan was submitted to the EPA on 08/05/2020 for monitoring in accordance with Condition U1. Advice from EPA is pending and as such, sampling under this condition (U1) did not commence in this period.

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM Concentration limit	100 Percentile concentration limit	Measured	Compliant
Aluminium	micrograms per litre	500	600			344	Yes
Cobalt	micrograms per litre	2.8	8.0			<0.1	Yes
Copper	micrograms per litre	2.9	10.3			0.8	Yes
Manganese	micrograms per litre	2000	10600			896	Yes
pH	pH units				6.5-8.5	7.63	Yes
TRH C10-C16	micrograms per litre	<100	<100			320	Above 90%. First measurement.
TRH C16-C34 (F3)	micrograms per litre	<100	<100			<100	Yes
TRH C34-C40 (F4)	micrograms per litre	<100	<100			<100	Yes
Turbidity	nephelometric turbidity units				25	3	Yes
Zinc	micrograms per litre	48	150			8	Yes



# Environment Protection Licence Monitoring Data



## Monitoring Type: Dust Monitoring (EPL 4627)

Monitoring Point / EPA Identification point (EPL 4627)	Start Date	Finish Date	Dust Deposition g/m2/day	Comment
DG01	20/04/2020	26/05/2020	7.5	
DG02	23/04/2020	26/05/2020	11.2	
DG03	23/04/2020	-	-	Fence removed during period. Landscaping complete – no DDG present.
DG04	22/04/2020	26/05/2020	3.3	

# Environment Protection Licence Monitoring Data

## Monitoring Type: Ground Water Monitoring (EPL 4627)

Sample Location:			MW1	MW4	LDS-BH-2023	LDS-BH-3071A	LDS-BH-3071
Sample Id:			-	MW4D_210520	-	3071A_220520	3071_220520
Laboratory Report Number:			-	SE206628	-	SE206628	SE206628
Laboratory:			-	SGS	-	SGS	SGS
Date Sampled:			-	21 May 20	-	22 May 20	22 May 20
Parameters	PQL	Units	Quarterly Monitoring Round				
			Quarter 2 2020	Quarter 2 2020	Quarter 2 2020	Quarter 2 2020	Quarter 2 2020
Standing Water Level	0.01	mBTOC	<b>Destroyed</b>	26.83	<b>Dry</b>	2.24	13.04
Temperature (field)	0.1	deg c		18.4		21.3	17.3
pH (field)	0.01	pH units		6.99		6.73	8.00
Electrical Conductivity (field)	1	µS/cm		5785		1154	441.3
Redox (field)	0.1	mV		-90.0		79.0	32.0
Dissolved Oxygen (field)	0.01	mg/L		0.92		0.56	2.46
Total Dissolved Solids	10	mg/L		4300		790	200
Chloride	1	mg/L		2000		50	58
Sulfate	1	mg/L		200		160	9.1
Sodium	0.5	mg/L		1300		56	43
Potassium	0.1	mg/L		19		20	3.2
Calcium	0.2	mg/L		130		170	19
Magnesium	0.1	mg/L		91		-	-
Ammonia as N	0.01	mg/L		2.4		0.02	0.04
Total Alkalinity (Carbonate and Bicarbonate)	5	mg/L	690	410	56		

# Environment Protection Licence Monitoring Data

## Monitoring Type: Leachate Analytical Results (EPL 4627)

<b>Sample Location:</b>			<b>LP1</b>
<b>Sample Id:</b>			LTP1_210520
<b>Laboratory Report Number:</b>			SE206628
<b>Laboratory:</b>			SGS
<b>Date Sampled:</b>			21 May 20
Parameters	PQL	Units	Quarterly Monitoring Round
			Quarter 2 2020
Temperature (field)	0.1	deg c	<b>20.9</b>
pH (field)	0.01	pH units	<b>6.89</b>
Electrical Conductivity (field)	1	uS/cm	<b>6380</b>
Redox (field)	0.1	mV	<b>-108.5</b>
Dissolved Oxygen (field)	0.01	mg/L	<b>5.5</b>
Total Dissolved Solids	10	mg/L	<b>3200</b>
Ammonia as N	0.01	mg/L	<b>170</b>
Total Alkalinity (Carbonate and Bicarbonate)	5	mg/L	<b>2200</b>
Chloride	1	mg/L	<b>860</b>
Sulfate	1	mg/L	<b>8</b>
Sodium	0.5	mg/L	<b>760</b>
Potassium	0.1	mg/L	<b>150</b>
Calcium	0.2	mg/L	<b>130</b>
Magnesium	0.1	mg/L	<b>70</b>
Fluoride	0.1	mg/L	<b>0.43</b>
Nitrate as N	0.005	mg/L	<0.050
Nitrite as N	0.005	mg/L	<0.005
Total Oxidised Nitrogen as N	0.005	mg/L	<0.005

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Total Phenolics (as Phenol)	0.01	mg/L	<b>0.02</b>
Total Organic Carbon	0.2	mg/L	<b>86</b>
Benzene	0.5	µg/L	<b>1.2</b>
Toluene	0.5	µg/L	<0.5
Ethylbenzene	0.5	µg/L	<0.5
m+p-xylene	1	µg/L	<1
o-xylene	1	µg/L	<0.5
Naphthalene	0.5	µg/L	<b>4.9</b>
TRH C6 - C9	40	µg/L	<40
TRH C10 - C14	50	µg/L	<b>310</b>
TRH C15 - C28	200	µg/L	<b>2700</b>
TRH C29 - C36	200	µg/L	<200
TRH C37 - C40	200	µg/L	<200
TRH C6 - C10	50	µg/L	<50
TRH C6 - C10 less BTEX (F1)	50	µg/L	<50
TRH >C10 - C16	60	µg/L	<b>440</b>
TRH >C10 - C16 less Naphthalene (F2)	60	µg/L	<b>440</b>
TRH >C16 - C34 (F3)	500	µg/L	<b>2800</b>
TRH >C34 - C40 (F4)	500	µg/L	<500
Naphthalene	0.1	µg/L	<b>3.6</b>
1-methylnaphthalene	0.1	µg/L	<b>0.9</b>
2-methylnaphthalene	0.1	µg/L	<b>1.3</b>
Acenaphthylene	0.1	µg/L	<0.1
Acenaphthene	0.1	µg/L	<b>0.5</b>
Fluorene	0.1	µg/L	<b>0.3</b>
Phenanthrene	0.1	µg/L	<b>0.3</b>
Anthracene	0.1	µg/L	<0.1

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Fluoranthene	0.1	µg/L	<0.1
Pyrene	0.1	µg/L	<0.1
Benzo(a)anthracene	0.1	µg/L	<0.1
Chrysene	0.1	µg/L	<0.1
Benzo(b&j)fluoranthene	0.1	µg/L	<0.1
Benzo(k)fluoranthene	0.1	µg/L	<0.1
Benzo(a)pyrene	0.1	µg/L	<0.1
Indeno(1,2,3-c,d)pyrene	0.1	µg/L	<0.1
Dibenzo(a,h)anthracene	0.1	µg/L	<0.1
Benzo(g,h,i)perylene	0.1	µg/L	<0.1
Total +ve PAH's	1	µg/L	<b>7</b>
HCB	0.1	µg/L	<0.1
alpha-BHC	0.1	µg/L	<0.1
gamma-BHC	0.1	µg/L	<0.1
beta-BHC	0.1	µg/L	<0.1
Heptachlor	0.1	µg/L	<0.1
delta-BHC	0.1	µg/L	<0.1
Aldrin	0.1	µg/L	<0.1
Heptachlor Epoxide	0.1	µg/L	<0.1
gamma-Chlordane	0.1	µg/L	<0.1
alpha-Chlordane	0.1	µg/L	<0.1
Endosulfan I	0.1	µg/L	<0.1
op-DDE	0.1	µg/L	<0.1
pp-DDE	0.1	µg/L	<0.1
Dieldrin	0.1	µg/L	<0.1
Endrin	0.1	µg/L	<0.1
Endrin ketone	0.1	µg/L	<0.1

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
op-DDD	0.1	µg/L	<0.1
pp-DDD	0.1	µg/L	<0.1
Endosulfan II	0.1	µg/L	<0.1
op-DDT	0.1	µg/L	<0.1
pp-DDT	0.1	µg/L	<0.1
Endrin Aldehyde	0.1	µg/L	<0.1
Endosulfan Sulfate	0.1	µg/L	<0.1
Isodrin	0.1	µg/L	<0.1
Methoxychlor	0.1	µg/L	<0.1
Mirex	0.1	µg/L	<0.1
trans-nonachlor	0.1	µg/L	<0.1
Azinphos-methyl (Guthion)	0.2	µg/L	<0.2
Bromophos ethyl	0.2	µg/L	<0.2
Chlorpyrifos	0.2	µg/L	<0.2
Diazinon	0.5	µg/L	<0.5
Dichlorovos	0.5	µg/L	<0.5
Dimethoate	0.5	µg/L	<0.5
Ethion	0.2	µg/L	<0.2
Fenitrothion	0.2	µg/L	<0.2
Malathion	0.2	µg/L	<0.2
Methidathion	0.5	µg/L	<0.5
Parathion	0.2	µg/L	<0.2
Aluminium	5	µg/L	<b>160</b>
Arsenic	1	µg/L	<b>2</b>
Barium	1	µg/L	<b>1900</b>
Cadmium	0.1	µg/L	<0.1
Chromium	1	µg/L	<b>8</b>

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Hexavalent Chromium, Cr6+	0.004	mg/L	<0.004
Cobalt	1	µg/L	<b>4</b>
Copper	1	µg/L	<b>2</b>
Lead	1	µg/L	<1
Manganese	1	µg/L	<b>210</b>
Mercury	0.0001	mg/L	<0.0001
Zinc	5	µg/L	<5





-  Discharge Point
-  Railway Station
-  ALF (subject to EPL No. 4627)
-  Deed Boundary
-  Premised Area

Z	ALF Boundary modification, Discharge/Dust Gauge remove/ removal	30/01/2020	
Y	Premised Area boundary modification	30/09/2019	
X	Premised Area boundary modification	30/08/2019	
W	ALF Boundary and Premise Area modification	18/06/2019	
U	Premised Area boundary modification	17/01/2019	
T	Added Discharge Point	08/01/2019	
S	Premised Area boundary modification	13/11/2018	
Rev	Description	Date	Approved

Scales

0 1,000 m

1:27500

Imagery Copyright NearMap 2019

Client




Status

**For Information Only - NOT FOR CONSTRUCTION**

Original Size	A3	Drawn	PB
Coordinate System	MGA ZONE 56	Requested by	
Height Datum	AHD	Date Printed	
Filename:			

WestConnex New M5

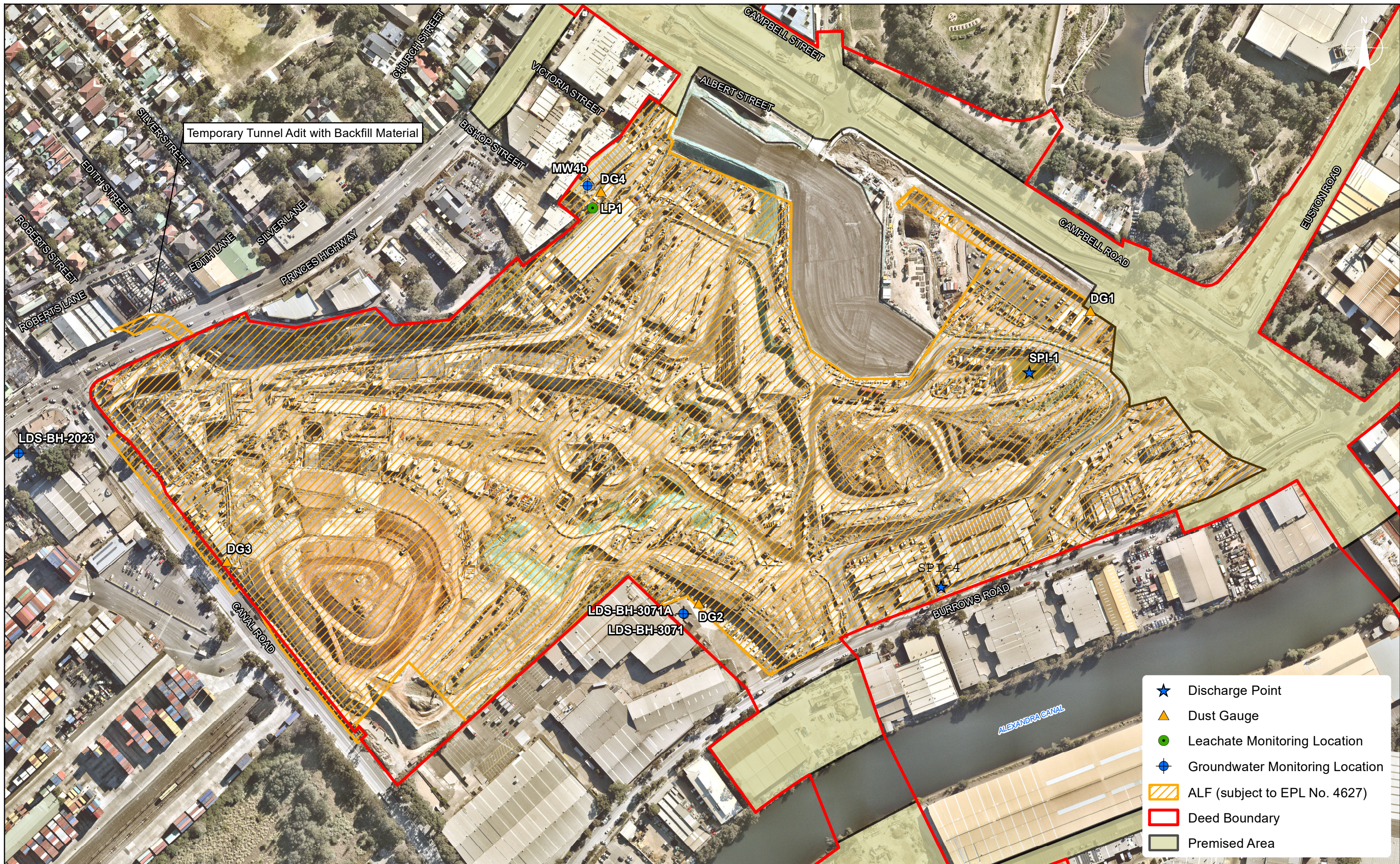


**WESTCONNEX New M5**

**Premise Map Overview**

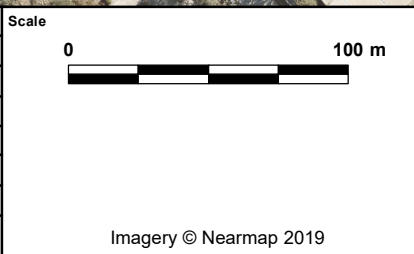
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- ★ Discharge Point
- ▲ Dust Gauge
- Leachate Monitoring Location
- Groundwater Monitoring Location
- ▨ ALF (subject to EPL No. 4627)
- ▭ Deed Boundary
- ▭ Premised Area

Rev	Description	Date	Approved
S	ALF Boundary and Premise Area modification	25/03/2020	
R	ALF Boundary modification, Dust Gauge move	31/01/2020	
Q	Premised Area boundary modification	17/01/2019	
P	Added Discharge Point	08/01/2018	
O	Modified premised area boundary	04/10/2018	
N	ALF Boundary and Premise Area modification	04/09/2018	
M	ALF Boundary and Premise Area modification	03/07/2018	



Client

Status  
For Information Only - NOT FOR CONSTRUCTION

Original Size	A3	Drawn	PB
Coordinate System	MGA ZONE 56	Requested by	CG
Height Datum	AHD	Date Printed	25/03/2020
Filename:	Premise_SPI_RevS.mxd		

WestConnex New M5

**WESTCONNEX New M5**

**Premise Map**  
**St Peters Interchange**

DOCUMENT NUMBER  
M5N-ES-MAP-PWD-0001-27