

Environment Protection Licence Monitoring Data

| | | |
|--|---|---|
| Project name: | WestConnex – New M5 | |
| Licensee | CPB Contractors Pty Limited | |
| Monitoring period | February 2020 | |
| Website: | https://www.westconnex.com.au/NewM5Environment | |
| Environment Protection licence number/s: | 20772 | 4627 |
| 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 |

Monitoring Type: Water Discharge Monitoring

| 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 | 1/02/2020 | 50 | 10 | 6.5-8.5 | 7.6 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 2/02/2020 | 50 | 9.6 | 6.5-8.5 | 7.57 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 3/02/2020 | 50 | 9.3 | 6.5-8.5 | 8 | None visible | None | Each discharge | Compliant |
| Sediment Basin SPI-1 | 3/02/2020 | 50 | 32 | 6.5-8.5 | 7.2 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 4/02/2020 | 50 | 6.9 | 6.5-8.5 | 8.15 | None visible | None | Each discharge | Compliant |
| Sediment Basin SPI-1 | 4/02/2020 | 50 | 40 | 6.5-8.5 | 8.4 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 7/02/2020 | 50 | 16.57 | 6.5-8.5 | 8.19 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 9/02/2020 | 50 | 8.2 | 6.5-8.5 | 8.32 | None visible | None | Each discharge | Compliant |
| Sediment Basin SPI-1 | 10/02/2020 | 50 | 1 | 6.5-8.5 | 8.4 | None visible | None | Each discharge | Compliant |
| Sediment Basin SPI-1 | 11/02/2020 | 50 | 35 | 6.5-8.5 | 7.5 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 11/02/2020 | 50 | 5.3 | 6.5-8.5 | 7.81 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 12/02/2020 | 50 | 2.8 | 6.5-8.5 | 8.2 | None visible | None | Each discharge | Compliant |

February 2020 Monitoring data for EPLs 20772 and 4627

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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 | | |
| Sediment Basin SPI-1 | 12/02/2020 | 50 | 30 | 6.5-8.5 | 6.5 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 13/02/2020 | 50 | 11.9 | 6.5-8.5 | 8.14 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 14/02/2020 | 50 | 20 | 6.5-8.5 | 8.3 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 15/02/2020 | 50 | 13 | 6.5-8.5 | 7.57 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 16/02/2020 | 50 | 12 | 6.5-8.5 | 7.7 | None visible | None | Each discharge | Compliant |
| Sediment Basin SPI-1 | 17/02/2020 | 50 | 25 | 6.5-8.5 | 7.7 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 18/02/2020 | 50 | 6.9 | 6.5-8.5 | 7.84 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 19/02/2020 | 50 | 7.6 | 6.5-8.5 | 8.25 | None visible | None | Each discharge | Compliant |
| Sediment Basin SPI-1 | 19/02/2020 | 50 | 22 | 6.5-8.5 | 8.3 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 20/02/2020 | 50 | 8.3 | 6.5-8.5 | 8.26 | None visible | None | Each discharge | Compliant |
| Sediment Basin SPI-1 | 20/02/2020 | 50 | 12 | 6.5-8.5 | 7.2 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 21/02/2020 | 50 | 8.76 | 6.5-8.5 | 7.76 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 22/02/2020 | 50 | 11 | 6.5-8.5 | 7.9 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 23/02/2020 | 50 | 10 | 6.5-8.5 | 8.1 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 26/02/2020 | 50 | 11 | 6.5-8.5 | 8 | None visible | None | Each discharge | Compliant |
| Water Treatment Plant ARN-2 | 27/02/2020 | 50 | 11 | 6.5-8.5 | 8.06 | 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: Ground Water Monitoring (EPL 4627)

| Date Sampled: 20/02/2020 | | Monitoring Point | | | | | |
|--|----------|------------------|-----------------|------------------|-----------------|---------|--------------------|
| Pollutant | Units | 2 (MW1) | 3 (LDS-BH-3071) | 4 (LDS-BH-3071a) | 5 (LDS-BH-2023) | 6 (MW4) | Frequency (MP 2-6) |
| Standing Water Level | mBTOC | Destroyed | 12.68 | 2.05 | Dry | 27.56 | Quarterly |
| Temperature (field) | deg c | Destroyed | 24.6 | 23.9 | Dry | 25.3 | Quarterly |
| pH (field) | pH units | Destroyed | 7.95 | 6.92 | Dry | 7.05 | Quarterly |
| Electrical Conductivity (field) | uS/cm | Destroyed | 358.9 | 1317 | Dry | 7700 | Quarterly |
| Redox (field) | mV | Destroyed | -64.2 | 66.2 | Dry | -120.5 | Quarterly |
| Dissolved Oxygen (field) | mg/L | Destroyed | 4.94 | 1.58 | Dry | 1.54 | Quarterly |
| Total Dissolved Solids | mg/L | Destroyed | 200 | 960 | Dry | 4600 | Quarterly |
| Chloride | mg/L | Destroyed | 68 | 56 | Dry | 2200 | Quarterly |
| Sulphate | mg/L | Destroyed | 13 | 200 | Dry | 180 | Quarterly |
| Sodium (Na) | mg/L | Destroyed | 54 | 68 | Dry | 1300 | Quarterly |
| Potassium (I) Ion | mg/L | Destroyed | 2.7 | 22 | Dry | 9.4 | Quarterly |
| Calcium (II) Ion | mg/L | Destroyed | 13 | 200 | Dry | 140 | Quarterly |
| Magnesium (II) Ion | mg/L | Destroyed | 2.3 | 20 | Dry | 92 | Quarterly |
| Ammonia as N | mg/L | Destroyed | 0.12 | 0.02 | Dry | 2.2 | Quarterly |
| Total Alkalinity (Carbonate and Bicarbonate) | mg/L | Destroyed | 57 | 430 | Dry | 690 | Quarterly |

Environment Protection Licence Monitoring Data

Monitoring Type: Leachate Analytical Results (EPL 4627)

| Date Sampled: 24/02/2020 | Monitoring Point | | | |
|--|------------------|-----------|--------|---------|
| | Pollutant | Frequency | Units | 7 (LPI) |
| Temperature (field) | Quarterly | deg c | 27.9 | |
| pH (field) | Quarterly | pH units | 6.88 | |
| Electrical Conductivity (field) | Quarterly | uS/cm | 6328 | |
| Redox (field) | Quarterly | mV | -129.5 | |
| Dissolved Oxygen (field) | Quarterly | mg/L | 0.89 | |
| Total Dissolved Solids | Quarterly | mg/L | 3100 | |
| Ammonia as N | Quarterly | mg/L | 170 | |
| Total Alkalinity (Carbonate and Bicarbonate) | Quarterly | mg/L | 1200 | |
| Chloride | Quarterly | mg/L | 850 | |
| Sulphate | Quarterly | mg/L | 10 | |
| Sodium (Na) | Quarterly | mg/L | 770 | |
| Potassium (I) Ion | Quarterly | mg/L | 160 | |
| Calcium (II) Ion | Quarterly | mg/L | 120 | |
| Magnesium (II) Ion | Quarterly | mg/L | 68 | |
| Fluoride, F | Quarterly | mg/L | 0.43 | |
| Nitrate as N in water | Quarterly | mg/L | <0.050 | |
| Nitrite as N in water | Quarterly | mg/L | <0.005 | |
| Total Oxidised Nitrogen as N | Quarterly | mg/L | <0.005 | |
| Total Phenolics (as Phenol) | Quarterly | mg/L | 0.09 | |
| Total Organic Carbon | Quarterly | mg/L | 93 | |
| Benzene | Quarterly | µg/L | 1 | |
| Toluene | Quarterly | µg/L | <0.5 | |
| Ethylbenzene | Quarterly | µg/L | <0.5 | |
| m+p-xylene | Quarterly | µg/L | <1 | |
| o-xylene | Quarterly | µg/L | <0.5 | |
| Naphthalene | Quarterly | µg/L | 7.4 | |
| TRH C6 - C9 | Quarterly | µg/L | <40 | |
| TRH C10 - C14 | Quarterly | µg/L | 930 | |
| TRH C15 - C28 | Quarterly | µg/L | 8600 | |
| TRH C29 - C36 | Quarterly | µg/L | 1000 | |

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| Date Sampled: 24/02/2020 | Monitoring Point | | |
|--------------------------------------|------------------|-------|---------|
| Pollutant | Frequency | Units | 7 (LPI) |
| TRH C37 - C40 | Quarterly | µg/L | <200 |
| TRH C6 - C10 | Quarterly | µg/L | <50 |
| TRH C6 - C10 less BTEX (F1) | Quarterly | µg/L | <50 |
| TRH >C10 - C16 | Quarterly | µg/L | 1300 |
| TRH >C10 - C16 less Naphthalene (F2) | Quarterly | µg/L | 1300 |
| TRH >C16 - C34 | Quarterly | µg/L | 9000 |
| TRH >C34 - C40 | Quarterly | µg/L | <500 |
| Naphthalene | Quarterly | µg/L | 2.6 |
| 1-methylnaphthalene | Quarterly | µg/L | 0.8 |
| 2-methylnaphthalene | Quarterly | µg/L | 1.1 |
| Acenaphthylene | Quarterly | µg/L | <0.1 |
| Acenaphthene | Quarterly | µg/L | <0.5 |
| Fluorene | Quarterly | µg/L | <0.4 |
| Phenanthrene | Quarterly | µg/L | 0.3 |
| Anthracene | Quarterly | µg/L | <0.1 |
| Fluoranthene | Quarterly | µg/L | <0.1 |
| Pyrene | Quarterly | µg/L | <0.1 |
| Benzo(a)anthracene | Quarterly | µg/L | <0.1 |
| Chrysene | Quarterly | µg/L | <0.1 |
| Benzo(b,j+k)fluoranthene | Quarterly | µg/L | <0.1 |
| Benzo(k)fluoranthene | Quarterly | µg/L | <0.1 |
| Benzo(a)pyrene | Quarterly | µg/L | <0.1 |
| Indeno(1,2,3-c,d)pyrene | Quarterly | µg/L | <0.1 |
| Dibenzo(a,h)anthracene | Quarterly | µg/L | <0.1 |
| Benzo(g,h,i)perylene | Quarterly | µg/L | <0.1 |
| Total +ve PAH's | Quarterly | µg/L | 6 |
| HCB | Quarterly | µg/L | <0.1 |
| alpha-BHC | Quarterly | µg/L | <0.1 |
| gamma-BHC | Quarterly | µg/L | <0.1 |
| beta-BHC | Quarterly | µg/L | <0.1 |
| Heptachlor | Quarterly | µg/L | <0.1 |
| delta-BHC | Quarterly | µg/L | <0.1 |

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Environment Protection Licence Monitoring Data

| Date Sampled: 24/02/2020 | Monitoring Point | | |
|---------------------------|------------------|-----------|-------|
| | Pollutant | Frequency | Units |
| Aldrin | Quarterly | µg/L | <0.1 |
| Heptachlor Epoxide | Quarterly | µg/L | <0.1 |
| gamma-Chlordane | Quarterly | µg/L | <0.1 |
| alpha-Chlordane | Quarterly | µg/L | <0.1 |
| Endosulfan I | Quarterly | µg/L | <0.1 |
| op-DDE | Quarterly | µg/L | <0.1 |
| pp-DDE | Quarterly | µg/L | <0.1 |
| Dieldrin | Quarterly | µg/L | <0.1 |
| Endrin | Quarterly | µg/L | <0.1 |
| Endrin ketone | Quarterly | µg/L | <0.1 |
| op-DDD | Quarterly | µg/L | <0.1 |
| pp-DDD | Quarterly | µg/L | <0.1 |
| Endosulfan II | Quarterly | µg/L | <0.1 |
| op-DDT | Quarterly | µg/L | <0.1 |
| pp-DDT | Quarterly | µg/L | <0.1 |
| Endrin Aldehyde | Quarterly | µg/L | <0.1 |
| Endosulfan Sulphate | Quarterly | µg/L | <0.1 |
| Isodrin | Quarterly | µg/L | <0.1 |
| Methoxychlor | Quarterly | µg/L | <0.1 |
| Mirex | Quarterly | µg/L | <0.1 |
| trans-nonachlor | Quarterly | µg/L | <0.1 |
| Azinphos-methyl (Guthion) | Quarterly | µg/L | <0.2 |
| Bromophos ethyl | Quarterly | µg/L | <0.2 |
| Chlorpyrifos | Quarterly | µg/L | <0.2 |
| Diazinon | Quarterly | µg/L | <0.5 |
| Dichlorovos | Quarterly | µg/L | <0.5 |
| Dimethoate | Quarterly | µg/L | <0.5 |
| Ethion | Quarterly | µg/L | <0.2 |
| Fenitrothion | Quarterly | µg/L | <0.2 |
| Malathion | Quarterly | µg/L | 0.2 |
| Methidathion | Quarterly | µg/L | <0.5 |
| Parathion | Quarterly | µg/L | 0.4 |

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| Date Sampled: 24/02/2020 | Monitoring Point | | |
|---------------------------|------------------|-------|---------|
| Pollutant | Frequency | Units | 7 (LPI) |
| Aluminium | Quarterly | µg/L | <5 |
| Arsenic | Quarterly | µg/L | 4 |
| Barium | Quarterly | µg/L | 1500 |
| Cadmium | Quarterly | µg/L | <0.1 |
| Chromium | Quarterly | µg/L | 11 |
| Hexavalent Chromium, Cr6+ | Quarterly | mg/L | <0.004 |
| Cobalt | Quarterly | µg/L | 4 |
| Copper | Quarterly | µg/L | <1 |
| Lead | Quarterly | µg/L | <1 |
| Manganese | Quarterly | µg/L | 170 |
| Mercury | Quarterly | µg/L | <0.0001 |
| Zinc | Quarterly | µg/L | <5 |

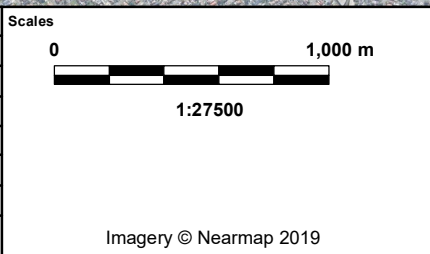
Monitoring Type: Dust Monitoring (EPL 4627)

| Monitoring Point / EPA Identification point (EPL 4627) | Start Date | Finish Date | Dust Deposition g/m2/month | Comment |
|---|------------|-------------|----------------------------|---------|
| DG01 | 17/01/2020 | 17/02/2020 | 18.1 | |
| DG02 | 17/01/2020 | 17/02/2020 | 12.6 | |
| DG03 | 17/01/2020 | 17/02/2020 | 24.2 | |
| DG04 | 17/01/2020 | 17/02/2020 | 59.9 | |




-  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 |




Client



| | | | |
|---|---------------------------|--------------|------------|
| Status | | | |
| For Information Only - NOT FOR CONSTRUCTION | | | |
| Original Size | A3 | Drawn | PB |
| Coordinate System | MGA ZONE 56 | Requested by | PS |
| Height Datum | AHD | Date Printed | 30/01/2020 |
| Filename: | Premise_Overview_revZ.mxd | | |

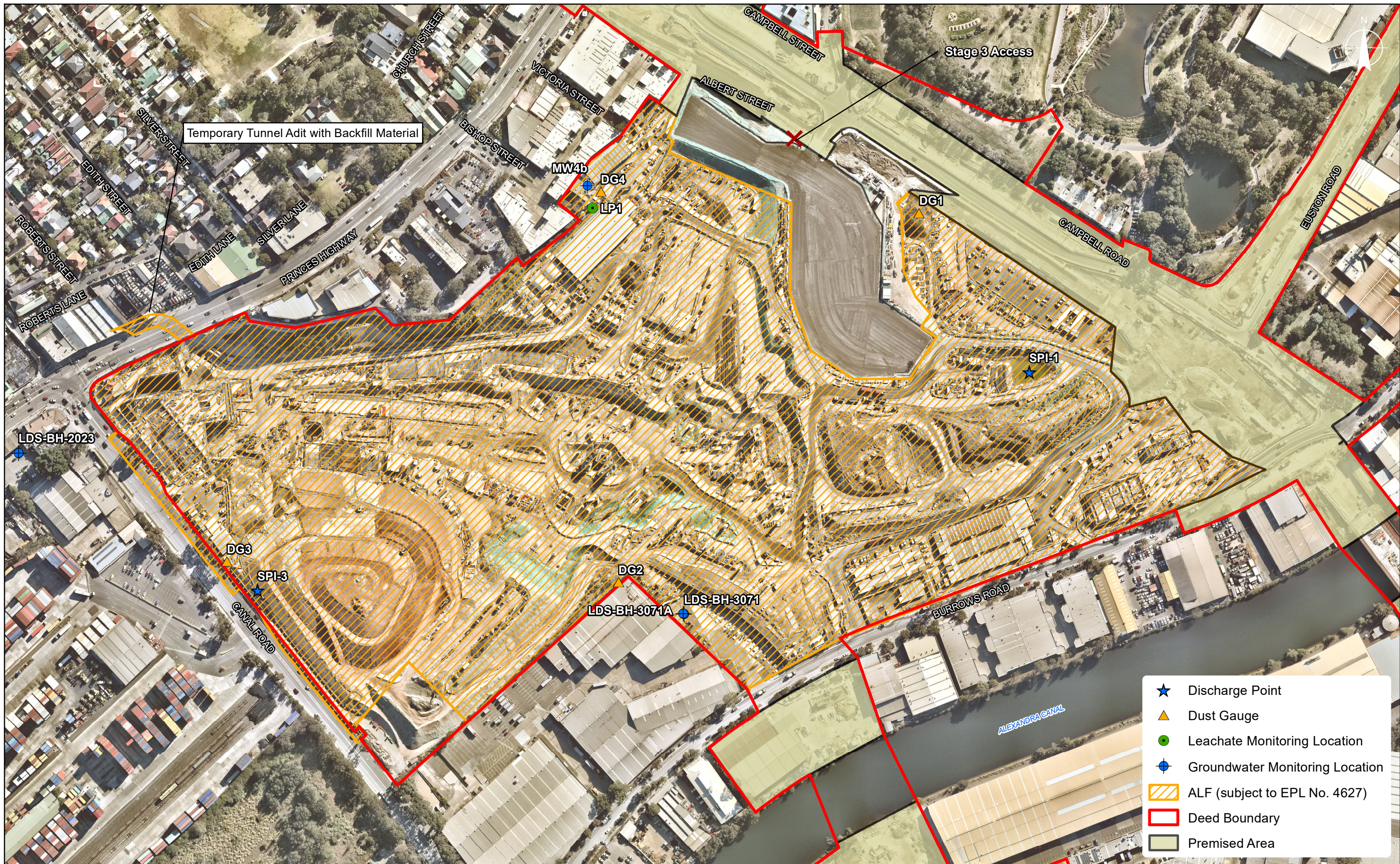
WestConnex New M5



WESTCONNEX New M5

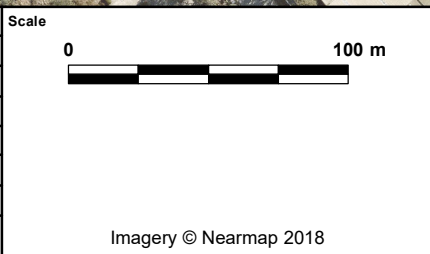
Premise Map Overview

DOCUMENT NUMBER
M5N-ES-MAP-PWD-001-26



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

| Rev | Description | Date | Approved |
|-----|--|------------|----------|
| 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 | |
| L | Modified premised area boundary | 14/03/2018 | |



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 | 31/01/2020 |
| Filename: | Premise_SPI_RevR.mxd | | |

WestConnex New M5

WESTCONNEX New M5

Premise Map
St Peters Interchange

DOCUMENT NUMBER
M5N-ES-MAP-PWD-001-26