# ENVIRONMENT PROTECTION LICENCE 20350 MONITORING DATA

**Licence Holder:** Santos NSW (Eastern) Pty Ltd
**Premises:** Narrabri Gas Field
X-Line Road, Narrabri, NSW 2390

**Licence No:** 20350
**EPL LINK:** https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=20350&id=20350&option=licence&searchrange=licence&range=POEO%20lice
Version 19JUN23

**EPL Period:** May 1st 2023 to April 30th 2024
**Reporting Period:** **Quarter 1 - May 2023 - July 2023**
**Published Date:** Aug-23

**Monitoring Location:** Refer to Table 1
**Scheduled Activity:** Coal seam gas exploration, assessment and production

**General Notes:**
Monitoring Point 80, 81 & 82 - no sample required in accordance with EPL20350 Condition M2.7 .
Monitoring Point 77 - no sample required in accordance with EPL20350 Condition M2.7 (Plant not operating).
Monitoring Point 69, 70 & 76 - no sample required in accordance with EPL20350 Condition M2.8 and M2.9.
Monitoring Point 83, 84, 85 & 86 - no sample required in accordance with EPL20350 Condition M2.6.
Monitoring points visited and reported dry : 18.
Monitoring points visited and reported insufficient liquid: 26, 28, 38, 39, 40, 43, 62, 66 and 78.
Monitoring points 47, 48 and 49: water level results calculated.
Grab samples for monitoring points with "Special Frequency 2" were taken in July 2023.
Locations 87-116 not yet commissioned.

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**Table 1: EPL20350 Water Monitoring Locations**

| EPA Identification No | Monitoring Type | Location | Latitude | Longitude |
|---|---|---|---|---|
| 7 | Groundwater Quality Monitoring | BWD27PRUPS02 | -30.66325 | 149.66586 |
| 8 | Groundwater Quality Monitoring | BWD27PRLPS03 | -30.66313 | 149.66589 |
| 9 | Groundwater Quality Monitoring | BWD26PRUPS01 | -30.62224 | 149.60153 |
| 10 | Groundwater Quality Monitoring | BWD26PRLPS02 | -30.62236 | 149.60145 |
| 11 | Groundwater Quality Monitoring | DWH14PRUPS01 | -30.54892 | 149.75932 |
| 12 | Groundwater Quality Monitoring | DWH14PRLPS02 | -30.54917 | 149.75918 |
| 13 | Groundwater Quality Monitoring | DWH14PRPUR03 | -30.54904 | 149.75925 |
| 14 | Groundwater Quality Monitoring | DWH3PRUPS01 | -30.65363 | 149.73657 |
| 15 | Groundwater Quality Monitoring | DWH3PRLPS02 | -30.65354 | 149.73671 |
| 18 | Groundwater Quality Monitoring | BWD27PRORA01 | -30.66339 | 149.66583 |
| 20 | Groundwater Quality Monitoring | BHN14PRORA01 | -30.47186 | 149.57446 |
| 21 | Groundwater Quality Monitoring | BHN14PRUPS02 | -30.47173 | 149.57440 |
| 26 | Groundwater Quality Monitoring | BWDMW12S | -30.63189 | 149.64828 |
| 27 | Groundwater Quality Monitoring | BWDMW12D | -30.63188 | 149.64829 |
| 28 | Groundwater Quality Monitoring | BWDMW12I | -30.63189 | 149.64830 |
| 37 | Groundwater Quality Monitoring | LWDMW1D | -30.49124 | 149.61902 |
| 38 | Groundwater Quality Monitoring | LWDMW1S | -30.49124 | 149.61903 |
| 39 | Groundwater Quality Monitoring | LWDMW1I | -30.49125 | 149.61905 |
| 40 | Groundwater Quality Monitoring | LWDMW2S | -30.50545 | 149.61643 |
| 41 | Groundwater Quality Monitoring | LWDMW2D | -30.50545 | 149.61642 |
| 42 | Groundwater Quality Monitoring | LWDMW3D | -30.50645 | 149.62451 |
| 43 | Groundwater Quality Monitoring | LWDMW3S | -30.50644 | 149.62452 |
| 44 | Groundwater Level Monitoring | DWH8AQGDGY01 | -30.55016 | 149.76832 |
| 45 | Groundwater Level Monitoring | DWH8AQGARK02 | -30.55016 | 149.76832 |
| 46 | Groundwater Level Monitoring | DWH8AQGPOR03 | -30.55016 | 149.76832 |
| 47 | Groundwater Level Monitoring | BWD28QGUPS01 | -30.66802 | 149.64007 |
| 48 | Groundwater Level Monitoring | BWD28QGLPS01 | -30.66802 | 149.64007 |
| 49 | Groundwater Level Monitoring | BWD28QGPUR01 | -30.66802 | 149.64007 |
| 56 | Groundwater Quality Monitoring | WPKMW9D | -30.36301 | 149.66006 |
| 57 | Groundwater Quality Monitoring | WPKMW9S | -30.36299 | 149.66007 |
| 59 | Groundwater Quality Monitoring | WPKMW13I | -30.36122 | 149.65886 |
| 60 | Groundwater Quality Monitoring | WPKMW13S | -30.36122 | 149.65889 |
| 61 | Groundwater Quality Monitoring | WPKMW14D | -30.36252 | 149.65694 |
| 62 | Groundwater Quality Monitoring | WPKMW14S | -30.36253 | 149.65695 |
| 63 | Groundwater Quality Monitoring | WPKMW15D | -30.36086 | 149.65691 |
| 64 | Groundwater Quality Monitoring | WPKMW15S | -30.36088 | 149.65691 |
| 65 | Groundwater Quality Monitoring | WPKMW16D | -30.36313 | 149.65370 |
| 66 | Groundwater Quality Monitoring | WPKMW16S | -30.36315 | 149.65369 |
| 69 | Produced Water Storage Pond | BWDPD2 | -30.63370 | 149.64930 |
| 70 | Produced Water Storage Pond | BWDPD3 | -30.63240 | 149.64890 |
| 71 | Produced Water Storage Pond | LWDPD1CELL4 | -30.49437 | 149.62000 |
| 72 | Produced Water Storage Pond | LWDPD1CELL3 | -30.49608 | 149.61991 |
| 73 | Produced Water Storage Pond | LWDPD1CELL2 | -30.49788 | 149.61962 |
| 74 | Produced Water Storage Pond | LWDPD1CELL1 | -30.49960 | 149.61927 |
| 75 | Produced Water Storage Pond | TFDPD1 | -30.36180 | 149.65950 |
| 76 | Produced Water Storage Pond | TFDPD2 | -30.36130 | 149.65830 |
| 77 | Treated Water Quality Monitoring | LWWTPDM1 | -30.50339 | 149.62206 |
| 78 | Groundwater Quality Monitoring | WPKMW18S | -30.36193 | 149.66295 |
| 79 | Groundwater Quality Monitoring | WPKMW18I | -30.36189 | 149.66296 |
| 80 | Groundwater Quality Monitoring | LWDMW4 | -30.49852 | 149.62643 |
| 81 | Groundwater Quality Monitoring | LWDMW5 | -30.49607 | 149.63064 |
| 82 | Groundwater Quality Monitoring | LWDMW6 | -30.49726 | 149.63251 |
| 83 | Soil Quality Monitoring | LWDSMP1 | -30.49943 | 149.62502 |
| 84 | Soil Quality Monitoring | LWDSMP2 | -30.49756 | 149.62727 |
| 85 | Soil Quality Monitoring | LWDSMP3 | -30.49763 | 149.63153 |
| 86 | Soil Quality Monitoring | LWDSMP4 | -30.50092 | 149.63042 |
| 87 | Groundwater Level Monitoring | BHNS1PRLPS01 | | |
| 88 | Groundwater Level Monitoring | BHNS1PRDGY02 | | |
| 89 | Groundwater Level Monitoring | BHNS1PRPOR03 | | |
| 90 | Groundwater Level Monitoring | BHNS1PRMCF04 | | |
| 91 | Groundwater Level Monitoring | BHNS1PRMCF05 | | |
| 92 | Groundwater Level Monitoring | BHNS1PRMCF06 | | |
| 93 | Groundwater Level Monitoring | BWD6PRLPS01 | | |
| 94 | Groundwater Level Monitoring | BWD6PRDGY02 | | |
| 95 | Groundwater Level Monitoring | BWD6PRMCF03C | | |
| 96 | Groundwater Level Monitoring | BWD6PRMCF03D | | |
| 97 | Groundwater Level Monitoring | BWD6PRMCF04 | | |
| 98 | Groundwater Level Monitoring | BWD6PRMCF05 | | |
| 99 | Groundwater Level Monitoring | DWH9PRLPS01 | | |
| 100 | Groundwater Level Monitoring | DWH9PRDGY02 | | |
| 101 | Groundwater Level Monitoring | DWH9PRPOP03 | | |
| 102 | Groundwater Level Monitoring | DWH9PRMCF03 | | |
| 103 | Groundwater Level Monitoring | DWH9PRMCF04 | | |
| 104 | Groundwater Level Monitoring | DWH9PRMCF05 | | |
| 105 | Groundwater Level Monitoring | DWH43PRLPS01 | | |
| 106 | Groundwater Level Monitoring | DWH43PRDGY02 | | |
| 107 | Groundwater Level Monitoring | DWH43PRPOR03 | | |
| 108 | Groundwater Level Monitoring | DWH43PRMCF03 | | |
| 109 | Groundwater Level Monitoring | DWH43PRMCF04 | | |
| 110 | Groundwater Quality Monitoring | DWH43PRMCF05 | | |
| 111 | Groundwater Quality Monitoring | DWH35PRLPS01 | | |
| 112 | Groundwater Quality Monitoring | DWH35PRDGY02 | | |
| 113 | Groundwater Quality Monitoring | DWH35PRPOR03 | | |
| 114 | Groundwater Quality Monitoring | DWH35PRMCF04 | | |
| 115 | Groundwater Quality Monitoring | DWH35PRMCF05 | | |
| 116 | Groundwater Quality Monitoring | DWH35PRMCF06 | | |

**Note:**
Monitoring points removed in accordance with Environmental Protection Licence (EPL) 23050 ammended 11th April 2021
(16, 17, 22, 23, 24, 25, 29, 30, 31, 32, 33, 34, 35, 36, 50, 51, 52, 53, 55, 58, 67 and 68)
Monitoring points 87-116 coordinates to be confirmed.

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**TABLE 2: GROUNDWATER QUALITY MONITORING (In situ - Quarterly)**

| | | EPA Identification No | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|
| | | Location | BWD27PRUPS02 | BWD27PRLPS03 | BWD26PRUPS01 | BWD26PRLPS02 | DWH14PRUPS01 | DWH14PRLPS02 |
| | | Date | 31/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 | 25/07/2023 | 25/07/2023 |
| | | Sample Method | in situ | in situ | in situ | in situ | in situ | in situ |
| **Parameter** | **Units** | **LOR** | RESULT | RESULT | RESULT | RESULT | RESULT | RESULT |
| Dissolved Oxygen | mg/L | - | 4.3 | 1 | 1.51 | 0.6 | 0.37 | 1.1 |
| Electrical Conductivity | µS/cm | - | 137 | 190 | 77 | 135 | 219 | 176 |
| pH | pH Unit | - | 5.29 | 5.57 | 5.51 | 5.95 | 5.65 | 5.28 |
| Redox Potential | mV | - | 67 | -40 | 27 | 14 | -10 | -1 |
| Standing Water Level | mTOC | - | 38.96 | 38.42 | 29.46 | 29.03 | 53.53 | 54.27 |

| | | EPA Identification No | 13 | 14 | 15 | 18 | 20 | 21 |
|---|---|---|---|---|---|---|---|---|
| | | Location | DWH14PRPUR03 | DWH3PRUPS01 | DWH3PRLPS02 | BWD27PRORA01 | BHN14PRORA01 | BHN14PRUPS02 |
| | | Date | 25/07/2023 | 27/07/2023 | 27/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 |
| | | Sample Method | in situ | in situ | in situ | No sample - dry | in situ | in situ |
| **Parameter** | **Units** | **LOR** | RESULT | RESULT | RESULT | RESULT | RESULT | RESULT |
| Dissolved Oxygen | mg/L | - | 0.47 | 2.39 | 1.14 | - | 1.96 | 0.45 |
| Electrical Conductivity | µS/cm | - | 717 | 120 | 133 | - | 540 | 465 |
| pH | pH Unit | - | 6.85 | 5.18 | 5.32 | - | 6.56 | 6.9 |
| Redox Potential | mV | - | -91 | 16 | 11 | - | -1 | -7 |
| Standing Water Level | mTOC | - | | 67.53 | 67.73 | - | 26.44 | 15.21 |

| | | EPA Identification No | 26 | 27 | 28 | 37 | 38 | 39 |
|---|---|---|---|---|---|---|---|---|
| | | Location | BWDMW12S | BWDMW12D | BWDMW12I | LWDMW1D | LWDMW1S | LWDMW1I |
| | | Date | 13/07/2023 | 13/07/2023 | 13/07/2023 | 13/07/2023 | 13/07/2023 | 13/07/2023 |
| | | Sample Method | Insufficient Liquid | in situ | Insufficient Liquid | in situ | Insufficient Liquid | Insufficient Liquid |
| **Parameter** | **Units** | **LOR** | RESULT | RESULT | RESULT | RESULT | RESULT | RESULT |
| Dissolved Oxygen | mg/L | - | - | 3.51 | - | 1.54 | - | - |
| Electrical Conductivity | µS/cm | - | - | 4322 | - | 2257 | - | - |
| pH | pH Unit | - | - | 6.73 | - | 6.42 | - | - |
| Redox Potential | mV | - | - | 29 | - | 20.9 | - | - |
| Standing Water Level | mTOC | - | - | 30.98 | - | 30.03 | - | - |

| | | EPA Identification No | 40 | 41 | 42 | 43 | 56 | 57 |
|---|---|---|---|---|---|---|---|---|
| | | Location | LWDMW2S | LWDMW2D | LWDMW3D | LWDMW3S | WPKMW9D | WPKMW9S |
| | | Date | 13/07/2023 | 13/07/2023 | 13/07/2023 | 13/07/2023 | 12/07/2023 | 12/07/2023 |
| | | Sample Method | Insufficient Liquid | in situ | in situ | Insufficient Liquid | in situ | in situ |
| **Parameter** | **Units** | **LOR** | RESULT | RESULT | RESULT | RESULT | RESULT | RESULT |
| Dissolved Oxygen | mg/L | - | - | 0.87 | 1.05 | - | 0.85 | 0.98 |
| Electrical Conductivity | µS/cm | - | - | 2036 | 936 | - | 1229 | 3404 |
| pH | pH Unit | - | - | 6.71 | 6.29 | - | 7.67 | 7.56 |
| Redox Potential | mV | - | - | 17.9 | 1.5 | - | -28 | -157 |
| Standing Water Level | mTOC | - | - | 25.99 | 21.1 | - | 15.36 | 15.69 |

**TABLE 2: GROUNDWATER QUALITY MONITORING (In situ - Quarterly)**

| | | EPA Identification No | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| | | Location | WPKMW13I | WPKMW13S | WPKMW14D | WPKMW14S | WPKMW15D | WPKMW15S |
| | | Date | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | Sample Method | in situ | in situ | in situ | Insufficient Liquid | in situ | in situ |
| **Parameter** | **Units** | **LOR** | RESULT | RESULT | RESULT | RESULT | RESULT | RESULT |
| Dissolved Oxygen | mg/L | - | 1.03 | 2.05 | 1.6 | - | 1.12 | 2.98 |
| Electrical Conductivity | µS/cm | - | 1246 | 2752 | 1213 | - | 1302 | 8703 |
| pH | pH Unit | - | 7.85 | 7.35 | 7.92 | - | 7.67 | 7.64 |
| Redox Potential | mV | - | 34 | 38 | 40 | - | 40 | 47 |
| Standing Water Level | mTOC | - | 16.78 | 16.88 | 20.92 | - | 22.13 | 22.43 |

| | | EPA Identification No | 65 | 66 | 78 | 79 | 99 |
|---|---|---|---|---|---|---|---|
| | | Location | WPKMW16D | WPKMW16S | WPKMW18S | WPKMW18I | DWH9PRLPS01 |
| | | Date | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 9/07/2023 |
| | | Sample Method | in situ | Insufficient Liquid | Insufficient Liquid | in situ | in situ |
| **Parameter** | **Units** | **LOR** | RESULT | RESULT | RESULT | RESULT | RESULT |
| Dissolved Oxygen | mg/L | - | 0.73 | - | - | 1.42 | 6.11 |
| Electrical Conductivity | µS/cm | - | 1241 | - | - | 1210 | 423.5 |
| pH | pH Unit | - | 7.54 | - | - | 7.62 | 6.68 |
| Redox Potential | mV | - | -16 | - | - | 13 | -70 |
| Standing Water Level | mTOC | - | 26.59 | - | 16.78 | 15.98 | result not available |

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**TABLE 2: GROUNDWATER QUALITY MONITORING (Representative Sample - Special Frequency 2)**

| | | EPA Identification No | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|
| | | Location | BWD27PRUPS02 | BWD27PRLPS03 | BWD26PRUPS01 | BWD26PRLPS02 | DWH14PRUPS01 | DWH14PRLPS02 | DWH14PRPUR03 |
| | | Date | 31/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 | 25/07/2023 | 25/07/2023 | 25/07/2023 |
| | | Sample Method | Grab sample | Grab sample | Grab sample | Grab sample | Grab sample | Grab sample | Grab sample |
| **Parameter** | **Units** | **LOR** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** |
| Aluminium | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 |
| Ammonia as N | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.05 | 0.14 | 5.26 |
| Arsenic | mg/L | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.003 | 0.003 | <0.001 |
| Barium | mg/L | 0.001 | 0.171 | 0.086 | 0.295 | 0.751 | 0.246 | 0.065 | 0.542 |
| Beryllium | mg/L | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Bicarbonate Alkalinity as CaCO3 | mg/L | 1 | 20 | 35 | 30 | 34 | 49 | 21 | 341 |
| Boron | mg/L | 0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0.14 |
| Bromide | mg/L | 0.010 | 0.083 | 0.108 | 0.017 | 0.053 | 0.121 | 0.118 | 0.091 |
| Cadmium | mg/L | 0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Calcium | mg/L | 1 | <1 | <1 | 1 | 1 | 1 | 1 | 38 |
| Carbonate Alkalinity as CaCO3 | mg/L | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloride | mg/L | 1 | 28 | 54 | 6 | 19 | 37 | 38 | 35 |
| Chromium | mg/L | 0.001 | 0.014 | 0.002 | <0.001 | <0.001 | 0.003 | 0.006 | 0.003 |
| Cobalt | mg/L | 0.001 | 0.006 | 0.002 | 0.003 | 0.017 | 0.003 | 0.005 | <0.001 |
| Copper | mg/L | 0.001 | 0.019 | <0.001 | <0.001 | <0.001 | 0.004 | 0.006 | 0.002 |
| Fluoride | mg/L | 0.1 | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | 0.4 |
| Iron | mg/L | 0.05 | <0.05 | 1.09 | 0.08 | <0.05 | <0.05 | 0.06 | 0.18 |
| Lead | mg/L | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Magnesium | mg/L | 1 | 2 | 2 | 2 | 2 | 5 | 2 | 2 |
| Manganese | mg/L | 0.001 | 0.058 | 0.025 | 0.038 | 0.037 | 0.055 | 0.05 | 0.177 |
| Mercury | mg/L | 0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Methane | mg/L | 0.010 | <0.01 | 0.09 | <0.01 | <0.01 | 0.014 | <0.01 | 5.78 |
| Molybdenum | mg/L | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | 0.001 |
| Nickel | mg/L | 0.001 | 0.243 | 0.221 | 0.12 | 0.014 | 0.244 | 0.146 | 0.003 |
| Nitrate as N | mg/L | 0.01 | 0.2 | <0.01 | <0.01 | <0.01 | 0.04 | 0.09 | <0.01 |
| Nitrite as N | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| pH** | pH Unit | 0.01 | 6.31 | 6.39 | 6.57 | 6.64 | 6.31 | 5.88 | 7.5 |
| Potassium | mg/L | 1 | 6 | 4 | 6 | 13 | 10 | 4 | 25 |
| Reactive Phosphorus | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.44 |
| Selenium | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Sodium | mg/L | 1 | 18 | 32 | 8 | 14 | 30 | 26 | 104 |
| Strontium (Dissolved) | mg/L | 0.001 | 0.025 | 0.022 | 0.034 | 0.054 | 0.045 | 0.017 | 1.04 |
| Sulfate as SO4 2- | mg/L | 1 | <1 | <1 | <1 | <1 | 3 | <1 | <1 |
| Total Dissolved Solids @180°C | mg/L | 10 | 91 | 110 | 58 | 91 | 139 | 121 | 469 |
| Uranium | mg/L | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Zinc | mg/L | 0.005 | 0.007 | 0.006 | 0.008 | 0.013 | 0.01 | 0.012 | <0.005 |

*Limit of reporting (LOR) has been adjusted due to matrix interference as per Australian Laboratory Services (ALS) certificate of analysis (COA) ES2323497.

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**TABLE 2: GROUNDWATER QUALITY MONITORING (Representative Sample - Special Frequency 2**

| | | EPA Identification No | 14 | 15 | 18 | 20 | 21 | 26 | 27 |
|---|---|---|---|---|---|---|---|---|---|
| | | Location | DWH3PRUPS01 | DWH3PRLPS02 | BWD27PRORA01 | BHN14PRORA01 | BHN14PRUPS02 | BWDMW12S | BWDMW12D |
| | | Date | 27/07/2023 | 27/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 | 13/07/2023 | 13/07/2023 |
| | | Sample Method | Grab sample | Grab sample | No sample - dry | Grab sample | Grab sample | Insufficient Liquid | Grab sample |
| **Parameter** | **Units** | **LOR** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** |
| Aluminium | mg/L | 0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | - | <0.01 |
| Ammonia as N | mg/L | 0.01 | 0.06 | 0.05 | - | 0.04 | 0.05 | - | 0.04 |
| Arsenic | mg/L | 0.001 | <0.001 | <0.001 | - | <0.001 | 0.001 | - | <0.001 |
| Barium | mg/L | 0.001 | 0.036 | 0.055 | - | 0.685 | 0.49 | - | 0.533 |
| Beryllium | mg/L | 0.001 | <0.001 | <0.001 | - | <0.001 | <0.001 | - | <0.001 |
| Bicarbonate Alkalinity as CaCO3 | mg/L | 1 | 17 | 31 | - | 218 | 234 | - | 1420 |
| Boron | mg/L | 0.05 | <0.05 | <0.05 | - | <0.05 | <0.05 | - | <0.05 |
| Bromide | mg/L | 0.010 | 0.066 | 0.065 | - | 0.099 | 0.045 | - | 3.16 |
| Cadmium | mg/L | 0.0001 | <0.0001 | <0.0001 | - | <0.0001 | <0.0001 | - | <0.0001 |
| Calcium | mg/L | 1 | <1 | <1 | - | 42 | 41 | - | 14 |
| Carbonate Alkalinity as CaCO3 | mg/L | 1 | <1 | <1 | - | <1 | <1 | - | <1 |
| Chloride | mg/L | 1 | 23 | 23 | - | 37 | 19 | - | 714 |
| Chromium | mg/L | 0.001 | 0.015 | <0.001 | - | <0.001 | <0.001 | - | <0.001 |
| Cobalt | mg/L | 0.001 | 0.006 | 0.002 | - | 0.004 | <0.001 | - | <0.001 |
| Copper | mg/L | 0.001 | 0.008 | 0.004 | - | <0.001 | <0.001 | - | <0.001 |
| Fluoride | mg/L | 0.1 | <0.1 | <0.1 | - | 0.3 | 0.3 | - | 0.5 |
| Iron | mg/L | 0.05 | <0.05 | 0.05 | - | 0.76 | 1.31 | - | 0.12 |
| Lead | mg/L | 0.001 | <0.001 | <0.001 | - | <0.001 | <0.001 | - | <0.001 |
| Magnesium | mg/L | 1 | 2 | 1 | - | 10 | 9 | - | 114 |
| Manganese | mg/L | 0.001 | 0.047 | 0.031 | - | 0.255 | 0.086 | - | 0.01 |
| Mercury | mg/L | 0.0001 | <0.0001 | <0.0001 | - | <0.0001 | <0.0001 | - | <0.0001 |
| Methane | mg/L | 0.010 | <0.01 | <0.01 | - | <0.01 | 1.28 | - | <0.01 |
| Molybdenum | mg/L | 0.001 | <0.001 | <0.001 | - | 0.002 | 0.005 | - | <0.001 |
| Nickel | mg/L | 0.001 | 0.175 | 0.084 | - | 0.153 | 0.004 | - | 0.001 |
| Nitrate as N | mg/L | 0.01 | 0.08 | <0.01 | - | <0.01 | <0.01 | - | 0.25 |
| Nitrite as N | mg/L | 0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | - | <0.01 |
| pH** | pH Unit | 0.01 | 5.91 | 6.24 | - | 7.36 | 7.69 | - | 7.5 |
| Potassium | mg/L | 1 | 2 | 3 | - | 4 | 6 | - | 31 |
| Reactive Phosphorus | mg/L | 0.01 | <0.01 | <0.01 | - | <0.01 | 0.02 | - | <0.01 |
| Selenium | mg/L | 0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | - | 0.02 |
| Sodium | mg/L | 1 | 19 | 22 | - | 58 | 44 | - | 777 |
| Strontium (Dissolved) | mg/L | 0.001 | 0.005 | 0.013 | - | 0.555 | 0.45 | - | 0.332 |
| Sulfate as SO4 2- | mg/L | 1 | 2 | 2 | - | 4 | <1 | - | 88 |
| Total Dissolved Solids @180°C | mg/L | 10 | 68 | 93 | - | 320 | 293 | - | 2660 |
| Uranium | mg/L | 0.001 | <0.001 | <0.001 | - | <0.001 | <0.001 | - | 0.004 |
| Vanadium | mg/L | 0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | - | <0.01 |
| Zinc | mg/L | 0.005 | 0.005 | <0.005 | - | <0.005 | <0.005 | - | <0.005 |

*Limit of reporting (LOR) has been adjusted due to matrix interference as per Austr

**TABLE 2: GROUNDWATER QUALITY MONITORING (Representative Sample - Special Frequency 2**

| | | EPA Identification No | 28 | 37 | 38 | 39 | 40 | 41 | 42 |
|---|---|---|---|---|---|---|---|---|---|
| | | Location | BWDMW12I | LWDMW1D | LWDMW1S | LWDMW1I | LWDMW2S | LWDMW2D | LWDMW3D |
| | | Date | 13/07/2023 | 13/07/2023 | 13/07/2023 | 13/07/2023 | 13/07/2023 | 13/07/2023 | 13/07/2023 |
| | | Sample Method | Insufficient Liquid | Grab sample | Insufficient Liquid | Insufficient Liquid | Insufficient Liquid | Grab sample | Grab sample |
| **Parameter** | **Units** | **LOR** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** |
| Aluminium | mg/L | 0.01 | - | <0.01 | - | - | - | <0.01 | <0.01 |
| Ammonia as N | mg/L | 0.01 | - | <0.01 | - | - | - | 0.04 | 0.26 |
| Arsenic | mg/L | 0.001 | - | <0.001 | - | - | - | 0.001 | 0.002 |
| Barium | mg/L | 0.001 | - | 0.4 | - | - | - | 0.591 | 0.068 |
| Beryllium | mg/L | 0.001 | - | <0.001 | - | - | - | <0.001 | <0.001 |
| Bicarbonate Alkalinity as CaCO3 | mg/L | 1 | - | 196 | - | - | - | 441 | 101 |
| Boron | mg/L | 0.05 | - | 0.16 | - | - | - | 0.14 | 0.1 |
| Bromide | mg/L | 0.010 | - | 1.35 | - | - | - | 0.761 | 0.482 |
| Cadmium | mg/L | 0.0001 | - | <0.0001 | - | - | - | <0.0001 | <0.0001 |
| Calcium | mg/L | 1 | - | 6 | - | - | - | 18 | 2 |
| Carbonate Alkalinity as CaCO3 | mg/L | 1 | - | <1 | - | - | - | <1 | <1 |
| Chloride | mg/L | 1 | - | 612 | - | - | - | 429 | 258 |
| Chromium | mg/L | 0.001 | - | <0.001 | - | - | - | <0.001 | <0.001 |
| Cobalt | mg/L | 0.001 | - | <0.001 | - | - | - | 0.001 | <0.001 |
| Copper | mg/L | 0.001 | - | <0.001 | - | - | - | <0.001 | <0.001 |
| Fluoride | mg/L | 0.1 | - | 0.3 | - | - | - | 0.4 | 0.2 |
| Iron | mg/L | 0.05 | - | <0.05 | - | - | - | <0.05 | 0.58 |
| Lead | mg/L | 0.001 | - | <0.001 | - | - | - | <0.001 | <0.001 |
| Magnesium | mg/L | 1 | - | 13 | - | - | - | 24 | 4 |
| Manganese | mg/L | 0.001 | - | <0.001 | - | - | - | 0.06 | 0.005 |
| Mercury | mg/L | 0.0001 | - | <0.0001 | - | - | - | <0.0001 | <0.0001 |
| Methane | mg/L | 0.010 | - | <0.01 | - | - | - | <0.01 | 0.213 |
| Molybdenum | mg/L | 0.001 | - | <0.001 | - | - | - | 0.003 | <0.001 |
| Nickel | mg/L | 0.001 | - | <0.001 | - | - | - | 0.008 | <0.001 |
| Nitrate as N | mg/L | 0.01 | - | 0.12 | - | - | - | 0.01 | <0.01 |
| Nitrite as N | mg/L | 0.01 | - | <0.01 | - | - | - | <0.01 | <0.01 |
| pH** | pH Unit | 0.01 | - | 7.18 | - | - | - | 7.59 | 7.1 |
| Potassium | mg/L | 1 | - | 13 | - | - | - | 25 | 10 |
| Reactive Phosphorus | mg/L | 0.01 | - | 0.07 | - | - | - | 0.11 | 0.1 |
| Selenium | mg/L | 0.01 | - | <0.01 | - | - | - | <0.01 | <0.01 |
| Sodium | mg/L | 1 | - | 415 | - | - | - | 364 | 178 |
| Strontium (Dissolved) | mg/L | 0.001 | - | 0.114 | - | - | - | 0.231 | 0.022 |
| Sulfate as SO4 2- | mg/L | 1 | - | 16 | - | - | - | 14 | 4 |
| Total Dissolved Solids @180°C | mg/L | 10 | - | 1280 | - | - | - | 1170 | 596 |
| Uranium | mg/L | 0.001 | - | <0.001 | - | - | - | 0.001 | <0.001 |
| Vanadium | mg/L | 0.01 | - | <0.01 | - | - | - | <0.01 | <0.01 |
| Zinc | mg/L | 0.005 | - | <0.005 | - | - | - | <0.005 | <0.005 |

*Limit of reporting (LOR) has been adjusted due to matrix interference as per Austr

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**TABLE 2: GROUNDWATER QUALITY MONITORING (Representative Sample - Special Frequency 2**

| | | EPA Identification No | 43 | 56 | 57 | 59 | 60 | 61 | 62 |
|---|---|---|---|---|---|---|---|---|---|
| | | Location | LWDMW3S | WPKMW9D | WPKMW9S | WPKMW13I | WPKMW13S | WPKMW14D | WPKMW14S |
| | | Date | 13/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | Sample Method | Insufficient Liquid | Grab sample | Grab sample | Grab sample | Grab sample | Grab sample | Insufficient Liquid |
| **Parameter** | **Units** | **LOR** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** |
| Aluminium | mg/L | 0.01 | - | <0.01 | <0.01 | 0.04 | <0.01 | <0.01 | - |
| Ammonia as N | mg/L | 0.01 | - | 1.27 | 0.4 | 0.01 | 0.01 | 0.03 | - |
| Arsenic | mg/L | 0.001 | - | 0.004 | 0.003 | 0.002 | 0.002 | 0.002 | - |
| Barium | mg/L | 0.001 | - | 0.26 | 0.177 | 0.045 | 0.088 | 0.334 | - |
| Beryllium | mg/L | 0.001 | - | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | - |
| Bicarbonate Alkalinity as CaCO3 | mg/L | 1 | - | 588 | 1440 | 602 | 1160 | 568 | - |
| Boron | mg/L | 0.05 | - | 0.21 | 0.34 | 0.22 | 0.33 | 0.22 | - |
| Bromide | mg/L | 0.010 | - | <0.2* | 1.01 | 0.216 | 1.24 | <0.2* | - |
| Cadmium | mg/L | 0.0001 | - | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | - |
| Calcium | mg/L | 1 | - | 5 | 8 | 6 | 4 | 8 | - |
| Carbonate Alkalinity as CaCO3 | mg/L | 1 | - | 14 | 32 | 10 | <1 | 16 | - |
| Chloride | mg/L | 1 | - | 140 | 359 | 81 | 437 | 71 | - |
| Chromium | mg/L | 0.001 | - | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | - |
| Cobalt | mg/L | 0.001 | - | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | - |
| Copper | mg/L | 0.001 | - | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | - |
| Fluoride | mg/L | 0.1 | - | 0.8 | 0.8 | 0.8 | 0.6 | 0.7 | - |
| Iron | mg/L | 0.05 | - | 0.98 | 0.08 | <0.05 | <0.05 | <0.05 | - |
| Lead | mg/L | 0.001 | - | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | - |
| Magnesium | mg/L | 1 | - | 1 | 3 | <1 | 2 | 2 | - |
| Manganese | mg/L | 0.001 | - | 1.02 | 0.222 | 0.003 | 0.006 | 0.004 | - |
| Mercury | mg/L | 0.0001 | - | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | - |
| Methane | mg/L | 0.010 | - | 0.613 | 0.159 | <0.01 | <0.01 | <0.01 | - |
| Molybdenum | mg/L | 0.001 | - | 0.002 | 0.002 | 0.003 | 0.003 | 0.001 | - |
| Nickel | mg/L | 0.001 | - | 0.005 | <0.001 | 0.002 | <0.001 | <0.001 | - |
| Nitrate as N | mg/L | 0.01 | - | 0.01 | <0.01 | 0.67 | 0.01 | 0.11 | - |
| Nitrite as N | mg/L | 0.01 | - | <0.01 | <0.01 | 0.05 | <0.01 | <0.01 | - |
| pH** | pH Unit | 0.01 | - | 8.35 | 8.38 | 8.32 | 7.79 | 8.37 | - |
| Potassium | mg/L | 1 | - | 4 | 10 | 5 | 10 | 6 | - |
| Reactive Phosphorus | mg/L | 0.01 | - | 0.36 | 0.54 | 0.27 | 0.27 | 0.2 | - |
| Selenium | mg/L | 0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - |
| Sodium | mg/L | 1 | - | 310 | 860 | 327 | 780 | 301 | - |
| Strontium (Dissolved) | mg/L | 0.001 | - | 0.06 | 0.082 | 0.022 | 0.04 | 0.041 | - |
| Sulfate as SO4 2- | mg/L | 1 | - | <1 | 33 | 2 | 3 | <1 | - |
| Total Dissolved Solids @180°C | mg/L | 10 | - | 662 | 2120 | 753 | 1870 | 678 | - |
| Uranium | mg/L | 0.001 | - | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 | - |
| Vanadium | mg/L | 0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - |
| Zinc | mg/L | 0.005 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - |

*Limit of reporting (LOR) has been adjusted due to matrix interference as per Austr

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**TABLE 2: GROUNDWATER QUALITY MONITORING (Representative Sample - Special Frequency 2**

| | | EPA Identification No | 63 | 64 | 65 | 66 | 78 | 79 | 99 |
|---|---|---|---|---|---|---|---|---|---|
| | | Location | WPKMW15D | WPKMW15S | WPKMW16D | WPKMW16S | WPKMW18S | WPKMW18I | DWH9PRLPS01 |
| | | Date | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 9/07/2023 |
| | | Sample Method | Grab sample | Grab sample | Grab sample | Insufficient Liquid | Insufficient Liquid | Grab sample | Grab sample |
| **Parameter** | **Units** | **LOR** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** | **RESULT** |
| Aluminium | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | - | - | <0.01 | 0.05 |
| Ammonia as N | mg/L | 0.01 | 0.05 | 0.05 | 0.15 | - | - | 0.02 | - |
| Arsenic | mg/L | 0.001 | 0.002 | 0.003 | 0.002 | - | - | 0.002 | 0.009 |
| Barium | mg/L | 0.001 | 0.394 | 2.07 | 0.202 | - | - | 0.091 | 0.026 |
| Beryllium | mg/L | 0.001 | <0.001 | <0.001 | <0.001 | - | - | <0.001 | < 0.001 |
| Bicarbonate Alkalinity as CaCO3 | mg/L | 1 | 616 | 3920 | 580 | - | - | 572 | 53 |
| Boron | mg/L | 0.05 | 0.17 | 0.61 | 0.08 | - | - | 0.21 | < 0.05 |
| Bromide | mg/L | 0.010 | 0.165 | 3.23 | <0.2* | - | - | <0.2* | - |
| Cadmium | mg/L | 0.0001 | <0.0001 | <0.0001 | <0.0001 | - | - | <0.0001 | < 0.0001 |
| Calcium | mg/L | 1 | 7 | 8 | 7 | - | - | 2 | 3 |
| Carbonate Alkalinity as CaCO3 | mg/L | 1 | <1 | 82 | 11 | - | - | 26 | 48 |
| Chloride | mg/L | 1 | 74 | 999 | 83 | - | - | 77 | 52 |
| Chromium | mg/L | 0.001 | <0.001 | 0.015 | <0.001 | - | - | <0.001 | 0.002 |
| Cobalt | mg/L | 0.001 | <0.001 | <0.001 | <0.001 | - | - | <0.001 | < 0.001 |
| Copper | mg/L | 0.001 | <0.001 | <0.001 | <0.001 | - | - | <0.001 | < 0.001 |
| Fluoride | mg/L | 0.1 | 0.4 | 1 | 0.2 | - | - | 0.6 | 0.3 |
| Iron | mg/L | 0.05 | 0.15 | <0.05 | 0.06 | - | - | <0.05 | < 0.05 |
| Lead | mg/L | 0.001 | <0.001 | <0.001 | <0.001 | - | - | <0.001 | < 0.001 |
| Magnesium | mg/L | 1 | 2 | 15 | 2 | - | - | <1 | < 1 |
| Manganese | mg/L | 0.001 | 0.052 | <0.001 | 0.096 | - | - | 0.003 | 0.002 |
| Mercury | mg/L | 0.0001 | <0.0001 | <0.0001 | <0.0001 | - | - | <0.0001 | < 0.0001 |
| Methane | mg/L | 0.010 | 0.197 | <0.01 | 0.044 | - | - | <0.01 | - |
| Molybdenum | mg/L | 0.001 | 0.008 | 0.003 | 0.004 | - | - | 0.002 | 0.003 |
| Nickel | mg/L | 0.001 | <0.001 | 0.001 | 0.002 | - | - | <0.001 | < 0.001 |
| Nitrate as N | mg/L | 0.01 | <0.01 | 0.49 | <0.01 | - | - | 0.7 | - |
| Nitrite as N | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | - | - | <0.01 | - |
| pH** | pH Unit | 0.01 | 8.13 | 8.39 | 8.32 | - | - | 8.47 | 9.29 |
| Potassium | mg/L | 1 | 9 | 35 | 13 | - | - | 5 | 4 |
| Reactive Phosphorus | mg/L | 0.01 | 0.29 | 0.62 | 0.28 | - | - | 0.34 | - |
| Selenium | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | - | - | <0.01 | < 0.01 |
| Sodium | mg/L | 1 | 316 | 2380 | 301 | - | - | 310 | 68 |
| Strontium (Dissolved) | mg/L | 0.001 | 0.048 | 0.258 | 0.053 | - | - | 0.014 | - |
| Sulfate as SO4 2- | mg/L | 1 | 11 | <1 | 5 | - | - | <1 | 7 |
| Total Dissolved Solids @180°C | mg/L | 10 | 740 | 5620 | 698 | - | - | 644 | 996 |
| Uranium | mg/L | 0.001 | <0.001 | 0.005 | 0.003 | - | - | <0.001 | - |
| Vanadium | mg/L | 0.01 | <0.01 | 0.02 | <0.01 | - | - | <0.01 | 0.02 |
| Zinc | mg/L | 0.005 | <0.005 | <0.005 | <0.005 | - | - | <0.005 | < 0.005 |

*Limit of reporting (LOR) has been adjusted due to matrix interference as per Austr

**TABLE 3: TREATED WATER QUALITY MONITORING**

| | | EPA Identification No | 77 | 77 | 77 |
|---|---|---|---|---|---|
| | | Location | LWWTPDM1 | LWWTPDM1 | LWWTPDM1 |
| | | Date | May-23 | Jun-23 | Jul-23 |
| | | Sample Method | No sample - plant not operating | No sample - plant not operating | No sample - plant not operating |
| **Parameter** | **Units** | **LOR** | RESULT | RESULT | RESULT |
| Ammonia as N | mg/L | 0.01 | - | - | - |
| Bicarbonate Alkalinity as CaCO3 | mg/L | 1 | - | - | - |
| Boron | mg/L | 0.05 | - | - | - |
| Calcium | mg/L | 1 | - | - | - |
| Carbonate Alkalinity as CaCO3 | mg/L | 1 | - | - | - |
| Chloride | mg/L | 1 | - | - | - |
| Electrical Conductivity | µS/cm | - | - | - | - |
| Fluoride | mg/L | 0.1 | - | - | - |
| Magnesium | mg/L | 1 | - | - | - |
| Nitrate as N | mg/L | 0.01 | - | - | - |
| Nitrite as N | mg/L | 0.01 | - | - | - |
| pH | pH Unit | - | - | - | - |
| Potassium | mg/L | 1 | - | - | - |
| Reactive Silica | mg/L | 1 | - | - | - |
| Sodium Adsorption Ratio | - | 0.01 | - | - | - |
| Sodium | mg/L | 1 | - | - | - |
| Sulfate as SO4 2- | mg/L | 1 | - | - | - |
| Total Alkalinity (as CaCO3) | mg/L | 1 | - | - | - |
| Total Dissolved Solids @180°C | mg/L | 10 | - | - | - |
| Total Hardness (as CaCO3) | mg/L | 1 | - | - | - |
| Total Nitrogen (as N) | mg/L | 0.5 | - | - | - |
| Total Phosphorus (as P) | mg/L | 0.01 | - | - | - |
| Total Residual Chlorine | mg/L | | - | - | - |
| Turbidity | NTU | 0.1 | - | - | - |

**TABLE 4: PRODUCED WATER STORAGE QUALITY MONITORING**

| | | EPA Identification No | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
|---|---|---|---|---|---|---|---|---|---|
| | | Location | BWDPD2 | BWDPD3 | LWDPD1CELL4 | LWDPD1CELL3 | LWDPD1CELL2 | LWDPD1CELL1 | TFDPD1 |
| | | Date | | | | 14/07/2023 | 14/07/2023 | 14/07/2023 | |
| | | Sample Method | No produced water | No produced water | No sample - dry | Field Sample | Field Sample | Field Sample | No produced water |
| **Parameter** | **Units** | **LOR** | RESULT | RESULT | RESULT | RESULT | RESULT | RESULT | RESULT |
| Aluminium | mg/L | 0.1 | - | - | - | - | - | - | - |
| Ammonia as N | mg/L | 0.01 | - | - | - | - | - | - | - |
| Arsenic | mg/L | 0.01 | - | - | - | - | - | - | - |
| Barium | mg/L | 0.01 | - | - | - | - | - | - | - |
| Beryllium | mg/L | 0.01 | - | - | - | - | - | - | - |
| Bicarbonate Alkalinity as CaCO3 | mg/L | 1 | - | - | - | - | - | - | - |
| Boron | mg/L | 0.1 | - | - | - | - | - | - | - |
| Bromide | mg/L | 0.01 | - | - | - | - | - | - | - |
| Cadmium | mg/L | 0.001 | - | - | - | - | - | - | - |
| Calcium | mg/L | 10 | - | - | - | - | - | - | - |
| Carbonate Alkalinity as CaCO3 | mg/L | 1 | - | - | - | - | - | - | - |
| Chloride | mg/L | 1 | - | - | - | - | - | - | - |
| Chromium | mg/L | 0.01 | - | - | - | - | - | - | - |
| Cobalt | mg/L | 0.01 | - | - | - | - | - | - | - |
| Copper | mg/L | 0.01 | - | - | - | - | - | - | - |
| Dissolved Oxygen | mg/L | - | - | - | - | 5.59 | 6.16 | 5.5 | - |
| Electrical Conductivity | µS/cm | - | - | - | - | 62344 | 39981 | 31034 | - |
| Iron | mg/L | 0.1 | - | - | - | - | - | - | - |
| Lead | mg/L | 0.01 | - | - | - | - | - | - | - |
| Magnesium | mg/L | 10 | - | - | - | - | - | - | - |
| Manganese | mg/L | 0.01 | - | - | - | - | - | - | - |
| Mercury | mg/L | 0.001 | - | - | - | - | - | - | - |
| Molybdenum | mg/L | 0.01 | - | - | - | - | - | - | - |
| Nickel | mg/L | 0.01 | - | - | - | - | - | - | - |
| Nitrate as N | mg/L | 0.01 | - | - | - | - | - | - | - |
| Nitrite as N | mg/L | 0.01 | - | - | - | - | - | - | - |
| pH | pH Unit | - | - | - | - | 9.47 | 9.3 | 9.19 | - |
| Potassium | mg/L | 10 | - | - | - | - | - | - | - |
| Redox potential | mV | - | - | - | - | 13 | 21 | 25 | - |
| Selenium | mg/L | 0.1 | - | - | - | - | - | - | - |
| Sodium Adsorption Ratio | - | 0.1 | - | - | - | - | - | - | - |
| Sodium | mg/L | 10 | - | - | - | - | - | - | - |
| Strontium | mg/L | 0.01 | - | - | - | - | - | - | - |
| Sulfate as SO4 2- | mg/L | 1 | - | - | - | - | - | - | - |
| Total Dissolved Solids @180°C | mg/L | 10 | - | - | - | - | - | - | - |
| Total Organic Carbon | mg/L | 1 | - | - | - | - | - | - | - |
| Total Phosphorus as P | mg/L | 0.1 | - | - | - | - | - | - | - |
| Uranium | mg/L | 0.01 | - | - | - | - | - | - | - |
| Vanadium | mg/L | 0.1 | - | - | - | - | - | - | - |
| Zinc | mg/L | 0.05 | - | - | - | - | - | - | - |

**TABLE 6: GROUNDWATER LEVEL MONITORING**

| EPA Identification No | 44 | 45 | 46 | 47 | 48 | 49 |
|---|---|---|---|---|---|---|
| Location | Dewhurst 8A-1 (DWH8AQGDGY01) | Dewhurst 8A-2 (DWH8AQGARK02) | Dewhurst 8A-3 (DWH8AQGPOR03) | Bibblewindi 28A (BWD28QGUPS01) | Bibblewindi 28B (BWD28QGLPS01) | Bilbbewindi 28C (BWD28QGPUR01) |
| Start Date | 1/05/2023 | 1/05/2023 | 1/05/2023 | 1/05/2023 | 1/05/2023 | 1/05/2023 |
| End Date | 31/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 |
| Sample Obteined | Standing Water Level | Standing Water Level | Standing Water Level | Standing Water Level | Standing Water Level | Standing Water Level |
| Number of Samples Required | Continuous | Continuous | Continuous | Continuous | Continuous | Continuous |
| Lowest sample value | -37.015 | 18.418 | -43.676 | -13.213 | -0.776 | -8.671 |
| Mean of sample | -36.968 | 18.932 | -43.121 | -13.142 | -0.708 | -7.134 |
| Highest sample value | -36.913 | 19.327 | -42.532 | -13.072 | -0.635 | -5.783 |

**Note:** Monitoring points 47,48 and 49: Sensor is recording pressure data in psi since 21 September 2022. The water level has been calculated.