

Annex F8

## Groundwater Monitoring Results

**Table F8.1 Groundwater Monitoring Results**

| Parameters                                  | Units   | MWX-1 | MWX-2 | MWX-3 | MWX-4 | MWX-5 | MWX-6 | MWX-7 | MWX-8 | MWX-9 | MWX-10 | MWX-11 | MWX-12 | MWX-13 | MWX-14 |
|---|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| Water Level                                 | mPD     | 3.51  | 2.91  | 2.84  | 2.97  | 2.52  | 2.41  | 2.44  | 2.46  | 2.34  | 3.23   | 2.77   | 6.39   | 35.42  | 42.11  |
| Bicarbonate Alkalinity as CaCO <sub>3</sub> | mg/L    | 180   | 265   | 175   | 41    | 47    | 126   | 38    | 17    | 126   | 199    | 232    | 54     | 17     | 13     |
| Carbonate Alkalinity as CaCO <sub>3</sub>   | mg/L    | <1    | <1    | <1    | <1    | <1    | <1    | <1    | 30    | <1    | <1     | <1     | <1     | <1     | <1     |
| Total Alkalinity as CaCO <sub>3</sub>       | mg/L    | 180   | 265   | 175   | 46    | 66    | 196   | 38    | 48    | 126   | 199    | 232    | 54     | 17     | 13     |
| pH Value                                    | pH Unit | 7.7   | 8     | 8     | 10    | 10.6  | 11.4  | 8.2   | 9.4   | 8.3   | 7.9    | 7.9    | 7.2    | 5.9    | 5.6    |
| Electrical Conductivity                     | µS/cm   | 978   | 843   | 1080  | 1140  | 1670  | 1290  | 1810  | 1780  | 890   | 818    | 676    | 297    | 91     | 98     |
| Ammonia                                     | mg/L    | 0.18  | 0.01  | 1.04  | 3.91  | 2.24  | 3.74  | 0.48  | 7.07  | 1.6   | <0.01  | 0.14   | 0.02   | <0.01  | <0.01  |
| Chloride                                    | mg/L    | 177   | 42    | 145   | 251   | 407   | 218   | 359   | 410   | 175   | 114    | 50     | 23     | 15     | 18     |
| Nitrite                                     | mg/L    | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.95  | <0.01 | <0.01 | <0.01  | <0.01  | <0.01  | <0.01  | <0.01  |
| Nitrophorus                                 | mg/L    | <0.01 | 0.01  | 0.01  | <0.01 | <0.01 | 0.01  | <0.01 | <0.01 | 0.1   | 0.02   | 0.01   | 0.04   | 0.01   | 0.01   |
| Sulphate                                    | mg/L    | 56    | 122   | 91    | 140   | 118   | 78    | 290   | 160   | 57    | 51     | 54     | 50     | 3      | 4      |
| Sulphide                                    | mg/L    | <0.1  | <0.1  | <0.1  | 4.1   | 5.3   | 19.4  | <0.1  | <0.1  | 0.4   | <0.1   | <0.1   | <0.1   | <0.1   | <0.1   |
| Total Kjeldahl Nitrogen                     | mg/L    | 0.3   | <0.1  | 1.2   | 4.5   | 2.7   | 4.6   | <1.0  | 7.8   | 1.7   | <0.1   | 0.2    | 0.4    | <0.1   | <0.1   |
| Nitrate                                     | mg/L    | 0.06  | 0.21  | <0.01 | <0.01 | <0.01 | <0.01 | 2.98  | <0.01 | <0.01 | <0.01  | <0.01  | 0.02   | 0.09   | 0.06   |
| Total Nitrogen                              | mg/L    | 0.3   | 0.2   | 1.2   | 4.5   | 2.7   | 4.6   | 4.4   | 7.8   | 1.7   | <0.1   | 0.2    | 0.4    | 0.2    | 0.1    |
| Boron                                       | µg/L    | 150   | 190   | 220   | 210   | 180   | 180   | 280   | 250   | 340   | 100    | 80     | 30     | 20     | 20     |
| Calcium                                     | mg/L    | 59.1  | 55    | 81.3  | 44.6  | 46.9  | 37.4  | 61.7  | 23.4  | 42.4  | 73.9   | 65.5   | 26.3   | 0.82   | 1.03   |
| Mercury                                     | µg/L    | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20  | <0.20  | <0.20  | <0.20  | <0.20  |
| Magnesium                                   | mg/L    | 9.65  | 47.8  | 4.7   | 1.44  | 0.17  | <0.05 | 2.6   | 0.32  | 5.48  | 7.4    | 6.23   | 4.09   | 1.03   | 0.91   |
| Sodium                                      | mg/L    | 101   | 40.7  | 102   | 140   | 229   | 150   | 240   | 263   | 104   | 71.6   | 52.3   | 25.1   | 14.1   | 15     |
| Iron  | mg/L    | <0.04 | <0.04 | 0.11  | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | 0.07  | <0.04  | 0.11   | 0.19   | <0.04  | <0.04  |
| Potassium                                   | mg/L    | 18.2  | 9.69  | 26.1  | 33.4  | 58.6  | 54.4  | 63.1  | 59.3  | 16.9  | 7.15   | 8.62   | 2.93   | 4.06   | 3.86   |
| Cadmium                                     | µg/L    | <0.2  | <0.2  | <0.2  | <0.2  | <0.2  | <0.2  | <0.2  | <0.2  | <0.2  | <0.2   | <0.2   | <0.2   | <0.2   | <0.2   |
| Chromium                                    | µg/L    | <1    | <1    | <1    | <1    | <1    | <1    | <1    | <1    | <1    | <1     | <1     | <1     | <1     | <1     |
| Copper                                      | µg/L    | <1    | 1     | <1    | <1    | <1    | <1    | 2     | <1    | <1    | <1     | <1     | <1     | <1     | <1     |
| Lead  | µg/L    | <1    | <1    | <1    | <1    | <1    | <1    | <1    | <1    | <1    | <1     | <1     | <1     | <1     | <1     |
| Manganese                                   | µg/L    | 1560  | 47    | 659   | <1    | <1    | <1    | 2     | 1     | 116   | 1360   | 544    | 414    | 5      | 5      |
| Nickel                                      | µg/L    | <1    | <1    | <1    | <1    | <1    | 1     | 1     | 3     | <1    | <1     | <1     | <1     | <1     | <1     |
| Zinc  | µg/L    | <10   | <10   | <10   | <10   | <10   | <10   | <10   | 17    | <10   | <10    | <10    | <10    | <10    | <10    |
| Biochemical Oxygen Demand                   | mg/L    | <2    | <2    | <2    | <2    | <2    | 8     | <2    | 3     | <2    | <2     | <2     | <2     | <2     | <2     |
| Chemical Oxygen Demand                      | mg/L    | 5     | 4     | 17    | 22    | 27    | 54    | 27    | 25    | 13    | 7      | 7      | 7      | <2     | 4      |
| Total Organic Carbon                        | mg/L    | 4     | 2     | 7     | 8     | 7     | 10    | 9     | 11    | 5     | 4      | 5      | 4      | <1     | 2      |