Table 1 – Meteorological Data (Monthly Average

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Meteorological Information** | **Mar-24** | **Feb-24** | **Jan-24** | **Dec-23** | **Nov-23** | **Oct-23** | **Sep-23** |
| Total Rainfall (mm) | 54.4 | 4.8 | 88.8 | 88.6 | 67.8 | 32.2 | 33.6 |
| Minimum Temperature at 2m (°C) | 6.8 | 7.6 | 11.2 | 10.1 | 4.2 | 2.4 | -1 |
| Average Temperature at 2m (°C) | 22.7 | 25.1 | 23.9 | 23.4 | 20.9 | 15.9 | 14.2 |
| Maximum Temperature at 2m (°C) | 38.3 | 39 | 36.4 | 41.1 | 40.5 | 33 | 34 |
| Minimum Temperature at 10m (°C) | 8.1 | 10.4 | 12.2 | 10.9 | 6.7 | 3.5 | 0.6 |
| Average Temperature at 10m (°C) | 23.6 | 25.7 | 24.6 | 24 | 21.5 | 16.7 | 15.5 |
| Maximum Temperature at 10m (°C) | 38.2 | 39 | 36.4 | 40.8 | 40.2 | 33 | 34.8 |
| Average Wind Speed (m/s) | 2.73 | 3.02 | 3.14 | 3.13 | 3.11 | 3.35 | 2.6 |
| Average Wind Direction (degrees) | 0.001 | 0.002 | 0.001 | 85.5 | 129.8 | 136.1 | 117.3 |
| Average Ground Solar Radiation (W/m2) | 254.1 | 322.3 | 302.1 | 318.7 | 292.6 | 270.3 | 224.3 |

\*Average widspeed measured in kph from Oct 2023 onwards.

Table 2 – Meteorological Data (Monthly Average) Prior Year

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Meteorological Information** | **Mar-23** | **Feb-23** | **Jan-23** | **Dec-22** | **Nov-22** | **Oct-22** | **Sep-22** | **Aug-22** | **Jul-22** | **Jun-22** | **May-22** | **Apr-22** |
| Total Rainfall (mm) | 70.8 | 1.2 | 37.0 | 42.4 | 42.4 | 129.4 | 95.6 | 64.6 | 15 | 17.2 | 64.8 | 3.6 |
| Minimum Temperature at 2m (°C) | 6.6 | 7.4 | 9.0 | 5.9 | 5.9 | 3.4 | -0.8 | -0.8 | -3.5 | -0.2 | -1 | 10.2 |
| Average Temperature at 2m (°C) | 21.2 | 23.5 | 24.1 | 20.4 | 20.4 | 15.2 | 11.4 | 10.2 | 7.9 | 9.7 | 18.1 | 16.7 |
| Maximum Temperature at 2m (°C) | 40.7 | 40.4 | 39.3 | 37.6 | 37.6 | 26.5 | 22.4 | 23.1 | 19.2 | 18.2 | 23.2 | 23.4 |
| Minimum Temperature at 10m (°C) | 8.8 | 8.3 | 17.6 | 7.1 | 7.1 | 5.3 | 1.6 | 1.7 | -1.2 | -0.2 | 2.5 | 12.1 |
| Average Temperature at 10m (°C) | 21.7 | 23.9 | 24.6 | 21.0 | 21 | 15.8 | 12.3 | 11 | 8.9 | 9.7 | 13.1 | 17.5 |
| Maximum Temperature at 10m (°C) | 39.9 | 39.6 | 32.0 | 37.9 | 37.9 | 26.7 | 22.3 | 23.3 | 18.4 | 18.2 | 23.3 | 30.9 |
| Average Wind Speed (m/s) | 11 | 12.4 | 10.7 | 11.6 | 11.6 | 12.3 | 10.6 | 11.7 | 10.4 | 10.8 | 9 | 10.3 |
| Average Wind Direction (degrees) | 162.8 | 185.3 | 128.2 | 157.3 | 157.3 | 150.6 | 167.1 | 215.2 | 176.4 | 232.3 | 108 | 137.1 |

Table 3 – Surface Water Monitoring results

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **General** | | | **Nutrients** | | | | |
| **Site** | **Date Sampled** | **pH  (pH Units)** | **Electrical Conductivity (µS/cm)** | **Total Suspended Solids (mg/L)** | **Total Kjeldahl Nitrogen (mg/L)** | **Total Nitrogen (mg/L)** | **Nitrate/Nitrite as N (mg/L)** | **Total Phosphorus (mg/L)** |
| ANZECC Criteria Limits | | 6.5 - 8.0 | 125 - 2,200 | - | - | 0.5 | 0.04 | 0.05 |
| NSW Water Quality Objectives | | 6.5 - 8.5 | 125 - 2,200 | - | - | 0.5 | - | 0.05 |
| Entry | 14-Jul-16 | 7.2 | 141 | 277 | 2 | 3 | 0.9 | 0.3 |
| Freezer Room Table Drain | 7.2 | 125 | 193 | 2 | 3 | 1.1 | 0.4 |
| Farm 77 Sth Table Drain | 7.3 | 103 | 657 | 2 | 3 | 1.1 | 0.3 |
| Farm 77 Nth Table Drain | 7.4 | 140 | 347 | 2 | 3 | 0.9 | 0.3 |
| Farm 78 SE Dam | 7.6 | 137 | 1,360 | 2 | 4 | 1.6 | 0.6 |
| Farm 79 SE Dam | 7.8 | 170 | 1,330 | 4 | 6 | 1.7 | 0.6 |
| Farm 78 SW Dam | 7.7 | 155 | 1,330 | <2 | 2 | 2 | 0.5 |
| Farm 79 NW Dam | 7.4 | 140 | 287 | 2 | 3 | 1 | 0.3 |
| Farm 78 Sediment Dam | 29-Sep-16 | 7.6 | 146 | 796 | 2 | 3 | 1.1 | 0.7 |
| Farm 78 Swale Drain | 7.8 | 139 | 2,560 | 2 | 3 | 1.1 | 1.2 |
| Farm 79 Sediment Dam | 7.4 | 160 | 230 | 2 | 7 | 5.3 | 0.9 |
| Farm 79 Swale Drain | 6.9 | 145 | 1,260 | 4 | 4 | 0.5 | 1.3 |
| Farm 75 Roadside table | 17-Mar-17 | 7.8 | 133 | 6,160 | 6 | 7 | 0.9 | 1.7 |
| Farm 78 Sediment Dam | 7.5 | 213 | 604 | 2 | 5 | 2.7 | 0.8 |
| Farm 79 Sediment Dam | 7.7 | 275 | 89 | 2 | <2 | 0.9 | 0.2 |
| Concrete batch plant table drain | 7.5 | 230 | 3,350 | 5 | 5 | 0.1 | 1.2 |
| S1 | 17-Jun-17 | 7.3 | 146 | 238 | 2 | - | 0.5 | 0.2 |
| S2 | 7.2 | 301 | 688 | 5 | - | 0.5 | 0.2 |
| S3 | 7.6 | 113 | 56 | 3 | - | 0.5 | 0.1 |
| PPU1 | 7.7 | 272 | 744 | 2 | - | 0.5 | 0.2 |
| PPU2 | 7.5 | 67 | 732 | 2 | - | 0.5 | 0.3 |
| PPU3 | 7.4 | 266 | 288 | 3 | - | 0.9 | 0.4 |
| PPU4 | 7.5 | 246 | 13 | 2 | - | 3.5 | 0.3 |
| PPU5 | 7.4 | 187 | 88 | 2 | - | 4.6 | 0.6 |
| PPU1 | 28-Sep-17 | 7.8 | 360 | 116 | <2 | <2 | 0.6 | <0.01 |
| PPU2 | 7.3 | 361 | 345 | 15 | 16 | 1.4 | 2.7 |
| PPU3 | 7.6 | 327 | 10 | 3 | 7 | 3.6 | 0.5 |
| PPU4 | 8.2 | 303 | 9 | 2 | 8 | 5.9 | 0.2 |
| PPU1 | 11/01/2018 | 7.5 | 268 | 1,000 | 2 | 4 | 1.8 | 0.1 |
| PPU2 | 7.2 | 213 | 510 | 9 | 9 | 0.2 | 0.6 |
| PPU3 | 9.2 | 374 | 221 | 3 | 3 | 0.1 | 0.1 |
| PPU4 | 9.1 | 258 | 218 | 5 | 5 | 0.1 | 0.3 |
| PPU5 | 8.2 | 222 | 115 | 2 | 6 | 4.5 | 0.4 |
| PPU1 | 05-Mar-18 | 9.7 | 493 | 29 | 2 | 2 | <0.5 | 0.3 |
| PPU2 | 8.7 | 388 | 1,280 | 10 | 14 | 3.8 | 2.1 |
| PPU3 | 8.5 | 729 | 1,660 | 14 | 14 | <0.5 | 2.2 |
| PPU4 | 8.1 | 514 | 454 | 10 | 10 | <0.5 | 1.2 |
| PPU5 | 8.2 | 301 | 87 | <2 | 2 | 2.5 | 0.7 |
| PPU1 | 03-Jun-18 | 9.4 | 677 | 28 | 19 | 19 | 0.2 | 0.2 |
| PPU2 | 7.9 | 479 | 1,100 | 21 | 21 | 0.3 | 2.8 |
| PPU3 | 9 | 833 | 39 | 4 | 5 | 1.4 | 0.3 |
| PPU4 | 8.5 | 456 | 13 | 2 | 3 | 0.9 | 0.8 |
| PPU5 | 8.3 | 370 | 129 | <2 | 3 | 3.1 | 0.9 |
| PPU1 | 04-Sep-18 | 8 | 720 | 69 | 78 | 79 | 0.8 | 1.2 |
| PPU2 | 7.9 | 389 | 27 | 79 | 80 | 1.2 | 1.7 |
| PPU3 | 8.2 | 407 | 32 | 4 | 4 | 0.2 | 0.9 |
| PPU4 | 9 | 573 | 390 | 25 | 25 | 0.4 | 2 |
| PPU5 | 8.1 | 395 | 49 | 3 | 6 | 3 | 1.1 |
| PPU1 | 18-Dec-18 | 7 | 708 | 12 | 4 | 4 | <0.5 | 0.6 |
| PPU2 | 7.2 | 388 | 117 | 5 | 5 | <0.5 | 1.6 |
| PPU3 | 7.2 | 701 | 106 | 7 | 8 | 0.5 | 1.2 |
| PPU4 | 7.6 | 411 | 15 | 2 | 2 | <0.5 | 1 |
| PPU5 | 8.6 | 482 | 21 | 2 | 3 | 0.8 | 0.7 |
| PPU1 | 19-Mar-19 | 8.3 | 862 | 129 | 6 | 6 | <1 | 0.6 |
| PPU2 | 7.4 | 447 | 1,220 | 18 | 18 | <1 | 3.7 |
| PPU3 | 7.9 | 249 | 330 | 46 | 46 | <1 | 0.5 |
| PPU4 | 7.4 | 434 | 11 | 2 | 2 | <1 | 0.7 |
| PPU5 | 7.4 | 636 | 55 | 7 | 7 | <1 | 1 |
| PPU1 | 19-Jun-19 | 7.6 | 271 | - | 3 | 3 | <0.5 | 0.4 |
| PPU2 | 7.4 | 253 | - | 3 | 3 | <0.5 | 0.4 |
| PPU3 | 7.4 | 202 | - | 5 | 8 | 2.8 | 1.4 |
| PPU4 | 7.7 | 318 | - | <2 | <2 | <0.5 | 0.6 |
| PPU5 | 8 | 400 | - | 4 | 5 | 0.6 | 0.7 |
| SW | 6.9 | 366 | - | 3 | 3 | <0.5 | 0.2 |
| PPU1 | 19-Sep-19 | 7.2 | 293 | 124 | 5 | 5 | <1 | 0.2 |
| PPU2 | 7 | 317 | 677 | 6 | 20 | 14 | 0.2 |
| PPU3 | 7.5 | 268 | 301 | 4 | 6 | 2 | 0.6 |
| PPU4 | 7.5 | 397 | 54 | 4 | 11 | 7 | 2.4 |
| PPU5 | 7.4 | 410 | 45 | 4 | 8 | 4 | 1.8 |
| PPU1 | 03-Dec-19 | 7.1 | 429 | 242 | 3 | 5 | 1.8 | 0.9 |
| PPU2 | 7.4 | 409 | 946 | 9 | 9 | <0.1 | 2.7 |
| PPU3 | 7.4 | 413 | 309 | 6 | 7 | 1.1 | 2.1 |
| PPU4 | 7.4 | 525 | 643 | 8 | 8 | <0.1 | 2.4 |
| PPU5 | 7.5 | 465 | 94 | <2 | <2 | 0.9 | 0.7 |
| PPU1 | 20-Mar-20 | 6.6 | 368 | 135 | 3 | 4 | 0.6 | 0.5 |
| PPU2 | 6.6 | 211 | 37 | 5 | 5 | <0.1 | 1.2 |
| PPU3 | 6.8 | 242 | 26 | 2 | 2 | 0.5 | 0.8 |
| PPU4 | 7.2 | 215 | 19 | 3 | 3 | <0.1 | 1.2 |
| PPU5 | 7.3 | 415 | 59 | 2 | 2 | 0.3 | 0.8 |
| PPU1 | 12-Jun-20 | 6.9 | 308 | 4 | 2 | 2 | <1 | 0.6 |
| PPU2 | 6.7 | 192 | 121 | 4 | 6 | 2 | 1 |
| PPU3 | 6.7 | 243 | 74 | 4 | 5 | 1 | 1.2 |
| PPU4 | 6.8 | 253 | 21 | 2 | 2 | <1 | 0.6 |
| PPU5 | 7.2 | 294 | 56 | 5 | 6 | 1 | 0.7 |
| PPU1 | 19-Nov-20 | 7.5 | 327 | 444 | 3 | 3 | <0.1 | 0.2 |
| PPU2 | 7.5 | 265 | 144 | 6 | 6 | <0.1 | 0.9 |
| PPU3 | 8.4 | 266 | 49 | 5 | 5 | <0.1 | 0.5 |
| PPU4 | 8.1 | 356 | 64 | 4 | 4 | 0.4 | 1.5 |
| PPU5 | 7.9 | 338 | 60 | 4 | 6 | 1.8 | 1 |
| PPU1 | 14-Apr-21 | 7.2 | 214 | 9 | <2 | <2 | <0.1 | <0.01 |
| PPU2 | 7.2 | 173 | 132 | 6 | 6 | <0.1 | 0.59 |
| PPU3 | 7.2 | 271 | 102 | 5 | 6 | 1.3 | 0.55 |
| PPU4 | 7.2 | 205 | 80 | 4 | 4 | <0.1 | 0.98 |
| PPU5 | 7.5 | 215 | 37 | 3 | 3 | 0.4 | <0.01 |
| S1 | 7.3 | 290 | 318 | - | - | <1 | 0.18 |
| PPU1 | 24-Sep-21 | 7.3 | 222 | 35 | 2 | 2 | 0.2 | 0.39 |
| PPU2 | 7.3 | 248 | 114 | 3 | 6 | 3 | 0.81 |
| PPU3 | 7.3 | 268 | 91 | 4 | 6 | 2.5 | 0.94 |
| PPU4 | 7.4 | 198 | 44 | 2 | 2 | 0.3 | 0.21 |
| PPU5 | 7.4 | 254 | 30 | 5 | 6 | 0.7 | 0.88 |
| PPU1 | 04-May-22 | 6.8 | 180 | 15 | 2 | 4 | 2 | <0.01 |
| PPU2 | 6.9 | 77 | 30 | 8 | 8 | <0.01 | 0.55 |
| PPU3 | 6.8 | 166 | 24 | 3 | 6 | 3.1 | 0.54 |
| PPU4 | 6.8 | 152 | 33 | 3 | 7 | 4 | 1.11 |
| PPU5 | 6.9 | 170 | 7 | 3 | 4 | 1 | <0.1 |
| PPU1 | 09-Sep-22 | 7 | 205 | 103 | 3 | 7 | 4.1 | 0.86 |
| PPU2 | 7.1 | 129 | 68 | 2 | 3 | 0.9 | 0.57 |
| PPU3 | 7.1 | 180 | 36 | 2 | 6 | 4.2 | 0.75 |
| PPU4 | 7.2 | 189 | 29 | 5 | 8 | 2.9 | 1.06 |
| PPU5 | 7.3 | 190 | 24 | 4 | 6 | 2.4 | 0.7 |
| PPU1 | 15-Mar-23 | 6.7 | 220 | 88 | 2 | 2 | 0.4 | 0.15 |
| PPU2 | 8.8 | 245 | 55 | 7 | 7 | 0.4 | 0.23 |
| PPU3 | 8.4 | 255 | 20 | 4 | 6 | 2 | 0.42 |
| PPU4 | 9.2 | 200 | 11 | 3 | 3 | 0.1 | 0.21 |
| PPU5 | 8.5 | 204 | 10 | 2 | 3 | 1.4 | 0.32 |
| PPU1 | 23-Sep-23 | 7.2 | 317 | 111 | 7 | 8 | 1.1 | 1.01 |
| PPU2 | 7.2 | 288 | 72 | 12 | 12 | 0.5 | 1.1 |
| PPU3 | 7.3 | 283 | 45 | 8 | 11 | 3.4 | 1.48 |
| PPU4 | 7.3 | 236 | 32 | 7 | 8 | 0.6 | 1.13 |
| PPU5 | 7.3 | 267 | 32 | 10 | 11 | 1 | 1.99 |
| PPU1 | 20-Mar-24 | 6.3 | 312 | 126 | 3 | 6 | 0.1 | 1.82 |
| PPU2 | 6.6 | 205 | 760 | 6 | 6 | <0.1 | 1.23 |
| PPU3 | 6.7 | 214 | 43 | 4 | 4 | <0.1 | 0.74 |
| PPU4 | 6.8 | 228 | 48 | 2 | 2 | 0.3 | 0.56 |
| PPU5 | 6.8 | 306 | 83 | 3 | 4 | 0.5 | 0.87 |

Table 4 – Shallow Aquifiers Peizo Groundwater Monitoring results

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Piezo ID** | **Date** | **General Parameters** | | | **Major Ions** | | | | | | | | **Nutrients** | | | **Misc** |
| **pH** | **Electrical Conductivity** | **Total Dissolved Solids** | **Sodium** | **Calcium** | **Potassium** | **Magnesium** | **Chloride** | **Sulphate** | **Alkalinity Carbonate as CaCO3** | **Bicarbonate as CaCO3** | **Ammonia as N** | **Nitrate as N** | **Phosphorus** | **Total organic carbon** |
| **-** | **uS/cm** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** |
| **ANZECC Guidelines** | | **6.5 - 8.5** | **-** | **1,200** | **180** | **-** | **-** | **-** | **250** | **250** | **200** | **200** | **0.5** | **50** | **-** | **-** |
| **Piezo 1 Deep** | Apr-16 | 7.1 | 253 | 215 | 39 | 8.7 | 3 | 4.7 | 13 | 5 | 2 | 116 | 0.1 | 1 | 0.11 | 11 |
| Oct-16 | 7.2 | 190 | 148 | 33.3 | 4.4 | 2.3 | 3.2 | 13.3 | 5 | 2 | 167 | 0.1 | 1 | 0.04 | 0.7 |
| Mar-17 | 7.1 | 190 | 135 | 31.6 | 4.8 | 1.1 | 3.7 | 15.6 | 4.6 | 2 | 91 | 0.1 | 0.1 | 0.16 | 4.4 |
| Jun-17 | 7 | 181 | 152 | 24.8 | 5.3 | 0.8 | 2.7 | 11.6 | 2.5 | 2 | 76 | 0.1 | 0.5 | 0.01 | 0.6 |
| Sep-17 | 7.2 | 186 | 133 | 24.6 | 4.7 | 1.6 | 4 | 11.5 | 2.5 | 2 | 76 | 1.1 | 0.5 | 0.01 | 0.7 |
| Jan-18 | 7.5 | 196 | 79 | 26.6 | 4.2 | 1.4 | 4 | 18.3 | 8 | 2 | 75 | 0.1 | 0.5 | 0.01 | 0.5 |
| Mar-18 | 9.1 | 191 | 140 | 30.9 | 5.2 | 1.6 | 2.9 | 12 | 9.3 | 2 | - | 0.1 | 1 | 0.09 | 1 |
| Jun-18 | 7.4 | 191 | 141 | 27.7 | 2.7 | 0.6 | 2.2 | 20.8 | 3.8 | - | 77 | 0.1 | 0.1 | 0.09 | 0.5 |
| Sep-18 | 7.5 | 182 | 119 | 31 | 2.6 | 2 | 0.7 | 11.6 | 4.1 | 2 | 80 | 0.1 | 0.5 | 0.11 | 0.7 |
| Dec-18 | 8.2 | 244 | 137 | 38.8 | 4.7 | 1.2 | 3.9 | 14.9 | 4.8 | 2 | 76 | 0.1 | 0.5 | 0.09 | 0.9 |
| Mar-19 | 7.7 | 200 | 170 | 36.5 | 2.8 | 2.1 | 2.3 | 20 | 5.9 | 2 | 369 | 0.3 | 1 | 0.18 | 0.6 |
| Jun-19 | 8.1 | 175 | 149 | 39.6 | 5.1 | 1.7 | 2.8 | 11.2 | 3.2 | - | 77 | 22 | 0.5 | 0.19 | 0.7 |
| Sep-19 | 7.5 | 189 | 142 | 40.8 | 3.9 | 1.7 | 2.3 | 13 | 6 | 2 | 81 | 0.1 | 1 | 0.01 | 0.8 |
| Dec-19 | 7.7 | 186 | 149 | 30.1 | 5.5 | 1.7 | 2.6 | 11.2 | 4.5 | 2 | - | 0.1 | 0.1 | 0.01 | 0.5 |
| Mar-20 | 6.8 | 183 | 124 | 28.8 | 3.8 | 0.9 | 3 | 16.3 | 2.7 | 2 | - | 2.5 | 0.1 | 0.03 | 0.5 |
| Jun-20 | 7.4 | 190 | 191 | 29.4 | 2.8 | 0.9 | 3.2 | 7.8 | 1.9 | 2 | 83 | 0.2 | 1 | 0.06 | 0.5 |
| Nov-20 | 7.8 | 283 | 130 | 32 | - | 1.1 | 3 | 13 | 11.2 | 2 | - | 0.1 | 1 | 0.01 | 0.9 |
| Apr-21 | 7.3 | 193 | 178 | 39.7 | 3.44 | 2.2 | 2.89 | 9.6 | 2.8 | <2 | 82 | 0.1 | 1 | 0.01 | 0.5 |
| Sep-21 | 7.5 | 183 | 141 | 28.1 | 4.48 | <2.00 | 2.22 | 12 | 5 | <2 | - | 0.1 | 0.3 | <0.1 | <0.5 |
| May-22 | 6.7 | 167 | 116 | 40 | 3.66 | 2 | 2.95 | 11.5 | 2.5 | <2 | - | <0.1 | 0.4 | <0.01 | <0.5 |
| Sep-22 | 7.6 | 186 | 170 | 30 | 4.8 | 1.3 | 3.1 | 41 | <5 | <2 | - | <0.1 | <1 | 0.24 | 0.6 |
| Mar-23 | 6.3 | 195 | 119 | 28.6 | 4.65 | 2.6 | 3.11 | 12.7 | 4.1 | <2 |  | 0.3 | 0.3 | 0.16 | 0.5 |
| Sep-23 | 8.4 | 190 | 122 | 34 | 4.68 | 2 | 3.2 | 41 | 10.4 | 2 | - | 0.4 | 1 | 0.36 | 0.5 |
| Mar-24 | 6.4 | 191 | 138 | 30.1 | 5.01 | 2.0 | 3.01 | 6.6 | 3 | 2 | - | 0.1 | 0.3 | 0.16 | 0.6 |
| Sep-24 | 6.8 | 198 | 153 | 29.9 | 4.34 | <2.0 | 3.32 | 11.5 | 3 | <2 |  | <0.1 | 0.1 | 0.1 | 0.8 |
| Mar-25 | 7.2 | 306 | 152 | 40 | 4 | 2.1 | 2.88 | 9.9 | 3 | <2 |  | <0.1 | 0.2 | 0.16 | 0.8 |
| **Avg** | **7.4** | **200.7** | **144.0** | **32.5** | **4.4** | **1.7** | **3.0** | **15.0** | **4.8** | **2.0** | **109.0** | **1.3** | **0.6** | **0.1** | **1.2** |
| **Piezo 2 Deep** | Apr-16 | 7.1 | 305 | 220 | 49 | 9.2 | 3.4 | 5.7 | 22 | 5 | 2 | 122 | 0.1 | 1 | 0.12 | 5 |
| Oct-16 | 6.9 | 179 | 141 | 17.2 | - | 1.1 | 3.5 | 69.1 | - | 2 | 71 | 0.1 | 0.5 | 0.08 | 0.5 |
| Mar-17 | 7.2 | 276 | 172 | 48.7 | 5.9 | 1.3 | 4.6 | 19.2 | 5.5 | 2 | 126 | 0.1 | 0.1 | 0.02 | 0.8 |
| Jun-17 | 7 | 266 | 190 | 36.8 | 7.9 | 1.6 | 4.3 | 16.4 | 4.1 | 2 | 110 | 0.1 | 0.5 | 0.05 | 1.4 |
| Sep-17 | 7.1 | 269 | 200 | 35.4 | 6.9 | 1.7 | 5.6 | 20.5 | 4.8 | 2 | 104 | 0.3 | 0.5 | 0.01 | 0.8 |
| Jan-18 | 7.3 | 293 | 205 | 35.6 | 6.9 | 1.9 | 5.3 | 24.9 | 6.9 | 2 | 104 | 0.1 | 0.5 | 0.01 | 0.8 |
| Mar-18 | 8.5 | 281 | 204 | 45.5 | 7.7 | 2.4 | 4.8 | 19 | 11.2 | 2 | - | 0.1 | 1 | 0.04 | 0.8 |
| Jun-18 | 7.2 | 271 | 193 | 38.7 | 4.4 | 1 | 3.7 | 12.5 | 2.4 | - | 105 | 0.1 | 0.1 | 0.12 | 0.5 |
| Sep-18 | 7.3 | 283 | 200 | 48.8 | 3.6 | 2.8 | 1.8 | 21.1 | 6.4 | 2 | 111 | 0.1 | 0.5 | 0.08 | 0.7 |
| Dec-18 | 8 | 301 | 191 | 48.7 | 6.4 | 1.6 | 4.8 | 17.6 | 5.8 | 2 | 104 | 0.1 | 0.5 | 0.06 | 0.8 |
| Mar-19 | 7.5 | 275 | 222 | 49.9 | 4.8 | 2.6 | 3.6 | 18 | 6.1 | 2 | 110 | 0.1 | 1 | 0.09 | 0.5 |
| Jun-19 | 7.4 | 271 | 204 | 52 | 6.9 | 2 | 4.7 | 19.3 | 4.1 | - | 108 | 34 | 0.5 | 0.09 | 0.6 |
| Sep-19 | 7.3 | 281 | 219 | 61.1 | 6.5 | 2.8 | 4.5 | 19 | 7 | 2 | 115 | 0.1 | 1 | 0.01 | 0.8 |
| Dec-19 | 7.3 | 272 | 196 | 43.2 | 5.8 | 2.3 | 4.8 | 18.2 | 6.1 | 2 | - | 0.1 | 0.2 | 0.01 | 0.5 |
| Mar-20 | 6.8 | 264 | 180 | 37.5 | 5.6 | 1.7 | 4.3 | 16.3 | 3.1 | 2 | - | 0.1 | 0.2 | 0.04 | 0.5 |
| Jun-20 | 7.2 | 277 | 205 | 46.2 | 5.2 | 1.2 | 4.7 | 14.8 | 2.3 | 2 | 112 | 0.1 | 1 | 0.01 | 0.5 |
| Nov-20 | 7.6 | 294 | 188 | 46 | - | 1.6 | 4.9 | 22.8 | 14.5 | 2 | - | 0.1 | 1 | 0.01 | 1 |
| Apr-21 | 7.2 | 280 | 198 | 60.3 | 6.44 | 3.4 | 4.99 | 15.4 | 4 | 2 | 116 | 0.1 | 2 | 0.01 | 0.6 |
| Sep-21 | 7.2 | 345 | 215 | 50.4 | 9.4 | 2 | 5.55 | 22 | 7 | <2 | - | <0.1 | 0.4 | <0.01 | <0.5 |
| May-22 | 6.8 | 350 | 243 | 55.5 | 6.5 | 3 | 5 | 46.2 | 6 | <2 | - | <0.1 | 0.4 | <0.01 | <0.5 |
| Sep-22 | 7.4 | 380 | 233 | 57 | 9.9 | 2 | 6.8 | 10 | <5 | <2 | - | <0.1 | <0.1 | 0.04 | 0.6 |
| Mar-23 | 6.3 | 426 | 233 | 54.5 | 9.57 | 3.2 | 6.84 | 72.9 | 5.7 | <2 | - | <0.1 | 0.5 | <0.01 | 0.6 |
| Sep-23 | 7.6 | 459 | 294 | 69.9 | 13.4 | 2.4 | 8.69 | 11 | 12.8 | 2 |  | 0.1 | 0.1 | 0.05 | 0.5 |
| Mar-24 | 6.0 | 211 | 137 | 51.8 | 9.66 | 2.9 | 6.66 | 12.8 | 7 | 2 | - | 0.1 | 0.3 | 0.20 | 0.9 |
| Sep-24 | 6.9 | 188 | 115 | 24.2 | 6.09 | <2.0 | 4.81 | 13.6 | 3 | <2 |  | <0.1 | 0.2 | 0.06 | 0.7 |
| Mar-25 | 6.9 | 289 | 155 | 34.2 | 7.38 | 2.6 | 5.55 | 21.4 | 5 | <2 |  | <0.1 | 0.3 | 0.14 | 1.2 |
| **Avg** | **7.2** | **291.8** | **198.2** | **46.1** | **7.2** | **2.2** | **5.0** | **22.9** | **6.1** | **2.0** | **108.4** | **1.8** | **0.6** | **0.1** | **0.9** |
| **Piezo 3 Deep** | Apr-16 | 7.2 | 278 | 194 | 41 | 11.4 | 4.9 | 6.7 | 17 | 5 | 2 | 131 | 0.1 | 1 | 0.35 | 5.9 |
| Oct-16 | 6.8 | 224 | 154 | 31.2 | 7.3 | 2.8 | 5.6 | 21.1 | 9 | 2 | 74 | 0.1 | 1 | 0.03 | 6.5 |
| Mar-17 | 7 | 182 | 132 | 27.2 | 5.7 | 1.2 | 4.6 | 14 | 3.4 | 2 | 72 | 0.1 | 0.1 | 0.09 | 0.7 |
| Jun-17 | 7.4 | 192 | 165 | 21.9 | 7.9 | 1.8 | 4.7 | 13.1 | 2.5 | 2 | 76 | 0.1 | 0.5 | 0.09 | 0.8 |
| Sep-17 | 7.2 | 182 | 157 | 19.2 | 6.7 | 1.6 | 5.4 | 13.2 | 2.5 | 2 | 70 | 1.3 | 0.5 | 0.01 | 0.6 |
| Jan-18 | 7.2 | 182 | 117 | 18.2 | 6.6 | 1.8 | 5.2 | 13.4 | 6.1 | 2 | 66 | 0.1 | 0.5 | 0.01 | 0.7 |
| Mar-18 | 8.3 | 182 | 122 | 22 | 6.7 | 1.8 | 4 | 14 | 7.5 | 2 | - | 0.1 | 1 | 0.06 | 0.5 |
| Jun-18 | 7.1 | 180 | 139 | 21.7 | 5.1 | 1.1 | 4.1 | 15.6 | 2.8 | - | 65 | 0.1 | 0.1 | 0.13 | 0.5 |
| Sep-18 | 7.2 | 181 | 124 | 20.8 | 3.2 | 2.3 | 1.5 | 13.6 | 3.6 | 2 | 70 | 0.1 | 0.5 | 0.1 | 0.6 |
| Dec-18 | 8 | 177 | 137 | 25 | 5.9 | 1.4 | 4.6 | 12.6 | 3.8 | 2 | 65 | 0.1 | 0.5 | 0.07 | 0.6 |
| Mar-19 | 7.4 | 189 | 161 | 27.2 | 4.6 | 2.6 | 3.4 | 13 | 4.1 | 2 | 71 | 0.1 | 1 | 0.01 | 0.6 |
| Jun-19 | 7.2 | 174 | 149 | 29.3 | 7.3 | 2.6 | 5.1 | 12.6 | 3 | - | 66 | 0.1 | 0.5 | 0.14 | 0.6 |
| Sep-19 | 7.2 | 173 | 137 | 30.2 | 5.8 | 2.3 | 3.9 | 13 | 5 | 2 | 70 | 0.1 | 1 | 0.01 | 0.5 |
| Dec-19 | 7.3 | 174 | 134 | 21.6 | 5.4 | 2.1 | 4.1 | 12.8 | 3.9 | 2 | - | 0.1 | 0.1 | 0.01 | 0.5 |
| Mar-20 | 6.8 | 168 | 114 | 18.6 | 5.1 | 1.3 | 4 | 7.6 | 1.9 | 2 | - | 0.1 | 0.2 | 0.01 | 0.5 |
| Jun-20 | 7 | 169 | 138 | 21.5 | 4.5 | 1.1 | 4.49 | 10.7 | 1.1 | 2 | 71 | 0.1 | 1 | 0.03 | 0.5 |
| Nov-20 | 7.4 | 534 | 128 | 23 | - | 1.4 | 4.2 | 11.9 | 10 | 2 | - | 0.1 | 1 | 0.01 | 0.7 |
| Apr-21 | 7.1 | 193 | 149 | 32.1 | 6.56 | 3.1 | 4.68 | 12.5 | 2.5 | 2 | 73 | 0.1 | 1 | 0.01 | 0.6 |
| Sep-21 | 7.2 | 178 | 105 | 21.8 | 6.35 | <2.00 | 3.76 | 11 | <5 | <2 | - | 0.1 | 0.3 | <0.01 | <0.5 |
| May-22 | 6.8 | 182 | 154 | 30.5 | 6.51 | 3.1 | 4.55 | 13.6 | 3 | <2 | - | <0.1 | 0.6 | <0.01 | <0.5 |
| Sep-22 | 7.4 | 190 | 137 | 24 | 6.8 | 1.7 | 4.5 | 64 | 6 | <2 | - | <0.1 | <1 | 0.1 | 0.6 |
| Mar-23 | 6.2 | 185 | 122 | 22.3 | 5.77 | 2.6 | 4.15 | 15.3 | 4.6 | <2 | - | <0.1 | 0.2 | 0.05 | 0.5 |
| Sep-23 | 7.5 | 185 | 118 | 26.7 | 6.08 | 2 | 4.15 | 62 | 9.1 | 2 | - | 0.1 | 1 | 0.06 | 0.5 |
| Mar-24 | 6.6 | 438 | 290 | 21.1 | 5.55 | 2.8 | 4.01 | 40.7 | 5 | 2 | - | 0.1 | 0.6 | 0.05 | 0.6 |
| Sep-24 | 7 | 434 | 187 | 64.4 | 10.5 | <2.0 | 7.75 | 74.1 | 4 | <2 |  | 0.6 | 0.6 | 0.04 | 0.8 |
| Oct-24 (Sep Retest) | 6.8 | 334 | 126 | 24.6 | 5.71 | <2.0 | 4.77 | 15.9 | 4 | <2 |  | <0.1 | 0.3 | 0.05 | <0.5 |
| Mar-25 | 6.8 | 365 | 223 | 69.3 | 7.96 | 2.8 | 7.77 | 44.4 | 7 | <2 |  | <0.1 | 0.4 | 0.03 | 1 |
| **Avg** | **7.2** | **230.6** | **148.6** | **28.0** | **6.4** | **2.2** | **4.7** | **21.6** | **4.6** | **2.0** | **74.3** | **0.2** | **0.6** | **0.1** | **1.1** |
| **Piezo 4 Deep** | Apr-16 | 7.3 | 590 | 716 | 100 | 17.4 | 7.2 | 12.9 | 50 | 7 | 2 | 248 | 0.1 | 1 | 2.35 | 11 |
| Oct-16 | 6.7 | 250 | 188 | 24.6 | - | 2 | 5.9 | 13 | - | 2 | 192 | 0.1 | 0.5 | 0.07 | 0.9 |
| Mar-17 | 7 | 566 | 372 | 96 | 17.6 | 8.5 | 15.5 | 57.6 | 10.2 | 2 | 210 | 0.5 | 0.1 | 1.85 | 2 |
| Jun-17 | 7 | 618 | 405 | 87.5 | 21 | 3.4 | 12.1 | 53 | 8.2 | 2 | 242 | 0.1 | 0.5 | 1.13 | 1.6 |
| Sep-17 | 6.9 | 600 | 341 | 79.4 | 17.1 | 3.9 | 14.6 | 60.2 | 10.2 | 2 | 212 | 0.1 | 0.5 | 0.94 | 1 |
| Jan-18 | 7 | 554 | 355 | 71.8 | 14.9 | 3.1 | 11.7 | 58.9 | 8.7 | 2 | 183 | 0.1 | 0.5 | 0.17 | 1 |
| Mar-18 | 7.9 | 538 | 307 | 80.6 | 23.1 | 3.9 | 14.1 | 58 | 27.7 | 2 | - | 0.1 | 1 | 0.69 | 0.6 |
| Jun-18 | 7 | 469 | 353 | 67.5 | 9.4 | 2.2 | 7.5 | 55.4 | 8.4 | - | 146 | 2 | 0.3 | 1.11 | 0.5 |
| Sep-18 | 7.2 | 481 | 245 | 80 | 7.5 | 5.8 | 6.9 | 56.3 | 9.8 | 2 | 155 | 1.8 | 0.5 | 0.93 | 0.7 |
| Dec-18 | 7.7 | 460 | 317 | 78.7 | 11.3 | 2.6 | 8.4 | 52.8 | 9.9 | 2 | 141 | 0.1 | 0.5 | 1.71 | 0.7 |
| Mar-19 | 7.6 | 427 | 288 | 84.3 | 9.5 | 7.8 | 7.2 | 56 | 10.7 | 2 | 133 | 0.7 | 1 | 1.27 | 0.5 |
| Jun-19 | 7 | 489 | 303 | 93.3 | 15.4 | 6.3 | 11.8 | 54.3 | 12.7 | - | 165 | 0.6 | 0.5 | 2.39 | 0.8 |
| Sep-19 | 7.2 | 526 | 378 | 114 | 15.6 | 5.8 | 11.3 | 62 | 10 | 2 | 178 | 0.1 | 1 | 0.01 | 0.9 |
| Dec-19 | 7.1 | 526 | 324 | 80.8 | 14.3 | 5.3 | 101 | 52.9 | 10.8 | 2 | - | 1 | 0.1 | 3.15 | 1.3 |
| Mar-20 | 6.7 | 505 | 343 | 72.1 | 14.8 | 8 | 90.6 | 60.6 | 6 | 2 | - | 4.6 | 0.3 | 0.45 | 2.4 |
| Jun-20 | 6.9 | 501 | 337 | 85.4 | 12.6 | 3.4 | 29.3 | 52.2 | 5.7 | 2 | 173 | 0.4 | 1 | 0.16 | 0.9 |
| Nov-20 | 7 | 585 | 387 | 79 | - | 2.1 | 35 | 92.3 | 12.5 | 2 | - | 0.1 | 1 | 0.27 | 1.6 |
| Apr-21 | 6.9 | 586 | 363 | 118 | 18.9 | - | 10.8 | 85.5 | - | 2 | 142 | <0.1 | <1 | <0.01 | 0.6 |
| Sep-21 | 7 | 606 | 329 | 92.3 | 17.6 | 3.9 | 10.5 | 65 | 9 | <2 | - | 0.4 | 0.1 | 0.57 | <0.5 |
| May-22 | 6.7 | 600 | 364 | 100 | 15.9 | 9.9 | 10.1 | 105 | 9.5 | <2 | - | <0.1 | 0.8 | <0.01 | <0.5 |
| Sep-22 | 7.2 | 507 | 298 | 36 | 13 | 2.1 | 9 | 28 | 8 | <2 | - | <0.1 | <1 | 0.5 | 0.5 |
| Mar-23 | 6.5 | 474 | 276 | 63.8 | 12.3 | 6.7 | 10.3 | 77.4 | 11.7 | <2 | - | 0.2 | 0.2 | 0.04 | 0.5 |
| Sep-23 | 7.5 | 545 | 349 | 96.8 | 13.8 | 2.7 | 10.6 | 33 | 20.7 | 2 | - | 0.1 | 1 | 0.31 | 0.5 |
| Mar-24 | 6.4 | 377 | 298 | 59.8 | 12 | 6 | 9.55 | 25.5 | 7 | 2 | - | 0.1 | 0.4 | 0.31 | 0.9 |
| Sep-24 | 7 | 480 | 120 | 73.6 | 12 | 4.1 | 9.45 | 72.3 | 8 | <2 |  | 3 | 0.5 | 0.54 | 1.5 |
| Oct-24 (Sep Retest) | 7.1 | 548 | 285 | 78.6 | 11.4 | 2.1 | 10.2 | 85.4 | 8 | <2 |  | <0.1 | 0.5 | 0.03 | <0.5 |
| Mar-25 | 6.7 | 378 | 101 | 73.9 | 8.97 | 3.1 | 8.05 | 37.8 | 7 | <2 |  | <0.1 | 0.5 | 0.21 | 1 |
| **Avg** | **7.0** | **510.6** | **323.8** | **80.3** | **14.3** | **4.7** | **18.3** | **57.8** | **10.3** | **2.0** | **180.0** | **0.7** | **0.6** | **0.8** | **1.4** |
| **Piezo 4 Shallow** | Nov-20 | 7.1 | 555 | 301 | 67 | - | 7.1 | 17 | 90.1 | 14.1 | 2 | - | 1.7 | 1 | 0.58 | 1.7 |
| Sep-23 | 7.5 | 545 | 349 | 96.8 | 13.8 | 2.7 | 10.6 | 33 | 20.7 | 2 |  | 0.1 | 0.1 | 0.31 | 0.5 |
| Mar-24 | 6.4 | 377 | 298 | 59.8 | 12 | 6 | 9.55 | 25.5 | 7 | 2 |  | 0.2 | 0.4 | 0.31 | 0.9 |
| **Avg** | **7.0** | **492.3** | **316.0** | **74.5** | **12.9** | **5.3** | **12.4** | **49.5** | **13.9** | **2.0** | **#DIV/0!** | **0.7** | **0.5** | **0.4** | **1.0** |
| **Piezo 5 Deep** | Apr-16 | 6.9 | 273 | 214 | 37 | 11.7 | 3.3 | 7.9 | 12 | 5 | 2 | 122 | 0.1 | 1 | 0.07 | 2.2 |
| Oct-16 | 6.7 | 178 | 139 | 17.7 | - | 1.2 | 3.7 | 13.7 | - | 2 | 68 | 0.1 | 0.5 | 0.08 | 0.5 |
| Mar-17 | 6.9 | 246 | 174 | 38.7 | 9.3 | 1.8 | 7.1 | 15.2 | 5.4 | 2 | 108 | 0.1 | 0.1 | 0.07 | 1.2 |
| Jun-17 | 6.9 | 236 | 184 | 26.3 | 10.5 | 1.2 | 5.9 | 11.9 | 2.5 | 2 | 105 | 0.1 | 0.5 | 0.03 | 1 |
| Sep-17 | 6.6 | 239 | 190 | 25.1 | 9.3 | 1.7 | 7.5 | 12.9 | 3 | 2 | 103 | 0.1 | 0.5 | 0.01 | 0.6 |
| Jan-18 | 7 | 241 | 191 | 23.5 | 9.2 | 1.8 | 6.9 | 12.5 | 6.3 | 2 | 100 | 0.1 | 0.5 | 0.01 | 0.7 |
| Mar-18 | 7.8 | 234 | 79 | 30.1 | 9.8 | 2 | 6 | 13 | 17.9 | 2 | - | 0.1 | 1 | 0.03 | 0.5 |
| Jun-18 | 6.9 | 234 | 162 | 28.6 | 7.5 | 1.2 | 5.8 | 15.2 | 3.2 | - | 98 | 0.1 | 0.1 | 0.13 | 0.5 |
| Sep-18 | 7 | 266 | 190 | 35.8 | 5 | 3.1 | 3.5 | 17.8 | 7.2 | 2 | 108 | 0.8 | 0.5 | 0.12 | 0.9 |
| Dec-18 | 7.6 | 232 | 168 | 32.8 | 9.2 | 1.5 | 6.7 | 11.2 | 4.1 | 2 | 100 | 0.1 | 0.5 | 0.05 | 0.6 |
| Mar-19 | 7.5 | 272 | 220 | 43.1 | 7.7 | 2.6 | 5.4 | 21 | 8.4 | 2 | 104 | 0.1 | 1 | 0.08 | 0.5 |
| Jun-19 | 6.7 | 236 | 171 | 35.7 | 9.6 | 2.2 | 6.3 | 13.3 | 4.4 | - | 100 | 0.1 | 0.5 | 0.16 | 1 |
| Sep-19 | 7.1 | 238 | 173 | 42.2 | 9.2 | 2.7 | 5.9 | 14 | 5 | 2 | 102 | 0.1 | 1 | 0.01 | 0.9 |
| Dec-19 | 7 | 232 | 171 | 28.8 | 8.2 | 2.3 | 6.2 | 12.1 | 4.9 | 2 | - | 0.1 | 0.1 | 0.05 | 0.7 |
| Mar-20 | 6.7 | 253 | 172 | 28.1 | 8.1 | 1.4 | 7.1 | 11.5 | 4.9 | 2 | - | 0.1 | 0.2 | 0.04 | 0.6 |
| Jun-20 | 6.8 | 241 | 203 | 30.3 | 7.8 | 1.3 | 6.8 | 9.6 | 2.4 | 2 | 107 | 0.1 | 1 | 0.04 | 0.5 |
| Nov-20 | 7 | 242 | 156 | 30 | - | 1.5 | 6.5 | 10 | 2.5 | 2 | - | 0.1 | 1 | 0.01 | 0.9 |
| Apr-21 | 6.9 | 236 | 195 | 40 | 9.26 | 2.9 | 6.49 | 10.8 | 2.6 | 2 | 107 | 0.1 | 1 | 0.01 | 0.5 |
| Sep-21 | 7 | 238 | 168 | 31.1 | 8.95 | <2.00 | 6.01 | 14 | <5 | <2 | - | 0.2 | 0.2 | 0.06 | <0.5 |
| May-22 | 6.7 | 265 | 198 | 44.4 | 9.66 | 3 | 6.55 | 20.5 | 4 | <2 | - | <0.1 | 0.5 | <0.01 | <0.5 |
| Sep-22 | 7 | 324 | 267 | 36 | 13 | 2 | 9.3 | 50 | 13 | <2 | - | <0.1 | 1 | 0.05 | <0.5 |
| Mar-23 | 6.4 | 337 | 224 | 36.1 | 12.5 | 34 | 8.62 | 38.9 | 17.5 | <2 | - | <0.1 | 1.2 | 0.03 | <0.5 |
| Sep-23 | 7.3 | 310 | 198 | 42 | 12.7 | 2.2 | 8.08 | 52 | 16 | 2 | - | 0.1 | 1 | 0.08 | 0.5 |
| Mar-24 | 6.6 | 284 | 182 | 34.7 | 12 | 3.2 | 9.01 | 12 | 6 | 2 | - | 0.1 | 0.3 | 0.1 | 0.8 |
| Sep-24 | 6.7 | 271 | 133 | 34.5 | 10.7 | <2.0 | 7.92 | 18.8 | 4 | <2 |  | 0.3 | 0.2 | 0.07 | 1.1 |
| Mar-25 | 6.4 | 276 | 179 | 43 | 10.7 | 2.6 | 8.11 | 20.2 | 4 | <2 |  | <0.1 | 0.3 | 0.14 | 1.1 |
| **Avg** | **6.9** | **255.2** | **180.8** | **33.7** | **9.6** | **3.4** | **6.7** | **17.9** | **6.4** | **2.0** | **102.3** | **0.1** | **0.6** | **0.1** | **0.8** |
| **Piezo 6 Deep** | Apr-16 | 7 | 409 | 276 | 56 | 18.5 | 4.8 | 11.5 | 35 | 5 | 2 | 210 | 0.1 | 1 | 0.15 | 5.2 |
| Oct-16 | 6.6 | 252 | 179 | 24.8 | - | 2 | 6.1 | 12.6 | - | 2 | 140 | 0.2 | 0.5 | 0.09 | 1.1 |
| Mar-17 | 6.8 | 347 | 271 | 50.6 | 13 | 2.3 | 9.2 | 36.1 | 6 | 2 | 119 | 0.1 | 0.2 | 0.08 | 1.1 |
| Jun-17 | 6.8 | 326 | 206 | 35.8 | 12 | 1.4 | 7.2 | 32.1 | 3.8 | 2 | 112 | 0.1 | 0.5 | 0.01 | 0.5 |
| Sep-17 | 6.7 | 391 | 253 | 43.7 | 13.4 | 3.2 | 11.2 | 43.6 | 8.2 | 2 | 122 | 1 | 0.5 | 0.01 | 1.1 |
| Jan-18 | 6.8 | 360 | 269 | 37.3 | 12.6 | 2.4 | 9.8 | 41 | 7.2 | 2 | 109 | 0.1 | 0.5 | 0.01 | 0.6 |
| Mar-18 | 7.5 | 347 | 213 | 43 | 12.9 | 2.5 | 8.1 | 38 | 15 | 2 | - | 0.1 | 1 | 0.02 | 0.5 |
| Jun-18 | 6.8 | 332 | 188 | 36.6 | 10.2 | 1.4 | 7.2 | 28.9 | 3.1 | - | 109 | 0.1 | 0.1 | 0.13 | 0.5 |
| Sep-18 | 7 | 339 | 174 | 45.6 | 7.5 | 3.1 | 5.9 | 37.8 | 6.6 | 2 | 114 | 0.1 | 0.5 | 0.1 | 0.8 |
| Dec-18 | 6.8 | 338 | 218 | 45.9 | 13 | 1.9 | 8.9 | 35 | 6.7 | 2 | 109 | 0.1 | 0.5 | 0.07 | 0.8 |
| Mar-19 | 7 | 344 | 240 | 48.3 | 10.4 | 3 | 6.3 | 36 | 7.1 | 2 | 107 | 0.1 | 1 | 0.13 | 0.5 |
| Jun-19 | 6.8 | 339 | 237 | 60.7 | 14.7 | 2.9 | 10.9 | 35.5 | 5.8 | - | 100 | 0.9 | 0.5 | 0.12 | 0.7 |
| Sep-19 | 7 | 338 | 220 | 56.9 | 12.6 | 2.9 | 8.3 | 43 | 5 | 2 | 111 | 0.1 | 1 | 0.01 | 0.7 |
| Dec-19 | 6.9 | 329 | 212 | 41.5 | 11.3 | 2.7 | 7.9 | 38.8 | 6.4 | 2 | - | 0.4 | 0.2 | 0.03 | 0.5 |
| Mar-20 | 6.6 | 319 | 217 | 34.3 | 10.4 | 1.9 | 7.5 | 29 | 3.6 | 2 | - | 0.1 | 0.3 | 0.24 | 0.6 |
| Jun-20 | 6.8 | 318 | 226 | 41.5 | 10.3 | 1.6 | 8.1 | 30 | 2.6 | 2 | 121 | 0.2 | 1 | 0.04 | 0.5 |
| Nov-20 | 6.8 | 325 | 197 | 39 | - | 1.7 | 8 | 27 | 2.5 | 2 | - | 0.1 | 1 | 0.01 | 1 |
| Apr-21 | 6.7 | 334 | 200 | 53.2 | 12.9 | 3.8 | 8.29 | 29.8 | 3.5 | <2 | 116 | <0.1 | 2 | <0.01 | 0.8 |
| Sep-21 | 6.9 | 360 | 236 | 44.7 | 16.2 | 2.3 | 8.55 | 45 | <5 | <2 | - | <0.1 | 0.4 | <0.01 | <0.5 |
| May-22 | 6.8 | 360 | 242 | - | 11.1 | 3.5 | 8.55 | 37.1 | 5 | <2 | - | <0.1 | 0.6 | <0.01 | <0.5 |
| Sep-22 | 6.9 | 332 | 256 | 40 | 14 | 2.2 | 8.7 | 44 | 6 | <2 | - | 0.1 | 3 | 0.08 | <0.5 |
| Mar-23 | 6.4 | 348 | 306 | 38.2 | 12.1 | 3.2 | 8.02 | 41.2 | 6.3 | <2 | - | <0.1 | 0.2 | 0.03 | <0.5 |
| Sep-23 | 7.2 | 363 | 232 | 51.5 | 14.3 | 2.4 | 8.69 | 44 | 11.5 | 2 | - | 0.1 | 2 | 0.09 | 0.5 |
| Mar-24 | 6.6 | 379 | 227 | 35.5 | 12.5 | 3.2 | 8.22 | 27.1 | 6 | 2 | - | 0.1 | 0.3 | 0.1 | 1 |
| Sep-24 | 6.6 | 379 | 227 | 46.6 | 15 | 2 | 10.6 | 47.9 | 5 | <2 |  | <0.1 | 0.3 | 0.06 | 0.8 |
| Mar-25 | 6.5 | 404 | 242 | 62.2 | 14.1 | 3.1 | 10.2 | 53.8 | 10 | <2 |  | <0.1 | 0.3 | 0.1 | 1 |
| **Avg** | **6.8** | **346.6** | **229.4** | **44.5** | **12.7** | **2.6** | **8.5** | **36.5** | **6.2** | **2.0** | **121.4** | **0.2** | **0.7** | **0.1** | **0.9** |

Table 5 – Deep Aquifer Production Bore Ground water monitoring results

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bore ID** | **Date** | **General Parameters** | | | **Major Ions** | | | | | | | | **Nutrients** | | | **Misc** | | |
| **pH** | **Electrical Conductivity** | **Total Dissolved Solids** | **Sodium** | **Calcium** | **Potassium** | **Magnesium** | **Chloride** | **Sulphate** | **Alkalinity Carbonate as CaCO3** | **Bicarbonate as CaCO3** | **Ammonia as N** | **Nitrate as N** | **Phosphorus** | | **Total organic carbon** |
| **-** | **uS/cm** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | | **mg/L** |
| **ANZECC Guidelines** | | **6.5 - 8.5** | **-** | **1,200** | **180** | **-** | **-** | **-** | **250** | **250** | **200** | **200** | **0.5** | **50** | **-** | | **-** |
| **Bore 1** | Aug-15 | 6.6 | 685 | - | 84.3 | 29.7 | 1.9 | 22 | 144 | 19 | - | - | 0.1 | 0.5 | 0.04 | | 0.5 |
| Apr-16 | 6.8 | 149 | 104 | 14 | 6.7 | 1.9 | 5.1 | 9 | 5 | 2 | 70 | 0.1 | 1 | 0.11 | | 0.5 |
| Oct-16 | 7.3 | 145 | 122 | 16 | 5.9 | 2 | 5 | 9.7 | 3.4 | 2 | 67 | 0.1 | 0.1 | 0.01 | | 0.5 |
| Jun-17 | 6.8 | 149 | 120 | 12.6 | 7.2 | 0.7 | 4.7 | 8.8 | 2.1 | 2 | 63 | 0.1 | 0.5 | 0.01 | | 0.5 |
| Sep-17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
| Jan-18 | 7 | 152 | 129 | 11.4 | 6.1 | 1.2 | 5.5 | 8.6 | 2.4 | 2 | 61 | 0.1 | 0.5 | 0.01 | | 0.5 |
| Jun-18 | 6.9 | 154 | 109 | 22.1 | 4.7 | 1.4 | 5.1 | 14.4 | 1 | 2 | 64 | 0.1 | 0.1 | 0.05 | | 0.7 |
| Dec-18 | 6.9 | 153 | 107 | 18.8 | 6.5 | 1.1 | 5.4 | 8.5 | 3.3 | 2 | 61 | 0.1 | 0.5 | 0.02 | | 0.5 |
| Jun-19 | 7 | 135 | 125 | 21.3 | 6.8 | 1.2 | 5.5 | 10.7 | 2.5 | - | 55 | 0.1 | 0.5 | 0.12 | | 0.5 |
| Dec-19 | 7 | 141 | 108 | 13.2 | 5.4 | 1.6 | 4.4 | 9.4 | 3.1 | 2 | - | 0.1 | 0.1 | 0.08 | | 0.5 |
| Jun-20 | 6.9 | 151 | 135 | 16 | 5.1 | 0.8 | 5.5 | 16.7 | 1.4 | 2 | 65 | 0.3 | 1 | 0.01 | | 0.7 |
| Nov-20 | 6.9 | 154 | 106 | 16 | - | 1.1 | 5.1 | 7 | 2.5 | 2 | - | 0.1 | 1 | 0.01 | | 0.6 |
| Apr-21 | 7.2 | 151 | 111 | 20.7 | 5.88 | 2.1 | 4.98 | 7.4 | 2.5 | 2 | 69 | 0.1 | 1 | 0.01 | | 0.5 |
| Sep-21 | 7 | 149 | 119 | 16 | 6.29 | <2.00 | 5.74 | 7.1 | <5 | <2 | - | <0.1 | <0.1 | <0.01 | | <0.5 |
| May-22 | 7 | 155 | 123 | 15.9 | 5.6 | 2 | 4.85 | 9.6 | 1.5 | <2 | - | <0.1 | <0.1 | <0.01 | | <0.5 |
| Sep-22 | 7 | 153 | 142 | 18 | 6.9 | 1.3 | 5.3 | 10 | <5 | <2 | - | <0.1 | 4 | <0.01 | | <0.5 |
| Mar-23 | 6.5 | 152 | 95 | 15.9 | 5.93 | 2.2 | 4.71 | 9.6 | 3.1 | <2 | - | <0.1 | <0.1 | <0.01 | | <0.5 |
| Sep-23 | 7.3 | 153 | 98 | 18.9 | 6.35 | <2.0 | 4.75 | 10 | 7.2 | <2 | - | <0.1 | 3 | 0.06 | | <0.5 |
| Mar-24 | 6.4 | 162 | 114 | 18 | 5.02 | 2 | 4.88 | 5.9 | 1 | <2 | - | <0.1 | <0.1 | 0.13 | | 8.8 |
| Sep-24 | 6.7 | 157 | <2 | 16.7 | 6.33 | <2.0 | 5.29 | 8.9 | 2 | <2 |  | <0.1 | <0.1 | <0.01 | | <0.5 |
| Mar-25 | 6.5 | 156 | 106 | 20.2 | 5.91 | <2.0 | 4.55 | 8.7 | 2 | <2 |  | <0.1 | <0.1 | 0.02 | | <0.5 |
| **Avg** | **6.9** | **177.8** | **115.2** | **20.3** | **7.3** | **1.5** | **5.9** | **16.2** | **3.6** | **2.0** | **63.9** | **0.1** | **1.0** | **0.0** | | **1.2** |
| **Bore 2** | Apr-16 | 6.8 | 138 | 124 | 13.7 | 5.5 | 1.9 | 4.4 | 9.9 | 5 | 2 | 55 | 0.1 | 1 | 0.1 | | 0.5 |
| Oct-16 | 7 | 132 | 117 | 15.7 | 5.4 | 2 | 4.6 | 9.5 | 2.3 | 2 | 56 | 0.1 | 0.3 | 0.01 | | 0.5 |
| Jun-17 | 7 | 139 | 107 | 11.3 | 6.3 | 0.6 | 4.2 | 9.3 | 1.8 | 2 | 56 | 0.1 | 0.5 | 0.01 | | 0.5 |
| Sep-17 | 6.7 | 139 | 128 | 11 | 5.9 | 1.1 | 5.4 | 9.2 | 2.5 | 2 | 55 | 0.3 | 0.5 | 0.01 | | 0.5 |
| Jan-18 | 7 | 140 | 114 | 9.9 | 5.9 | 1.1 | 5 | 8.7 | 2.2 | 2 | 53 | 0.1 | 0.5 | 0.01 | | 0.5 |
| Jun-18 | 6.9 | 139 | 94 | 19 | 4.8 | 1.3 | 4.8 | 19.4 | 6.6 | 2 | 57 | 1.2 | 0.3 | 0.07 | | 1 |
| Dec-18 | 6.9 | 140 | 94 | 15.3 | 5.7 | 1 | 4.7 | 8.7 | 2.9 | 2 | 53 | 0.1 | 0.5 | 0.02 | | 0.5 |
| Jun-19 | 6.8 | 138 | 117 | 22 | 6.8 | 1.2 | 5.4 | 9.3 | 2.5 | - | 55 | 0.1 | 0.5 | 0.08 | | 0.5 |
| Dec-19 | 7 | 141 | 100 | 13.4 | 5.5 | 1.6 | 4.5 | 9.5 | 5 | 2 | - | 0.1 | 0.1 | 0.01 | | 0.5 |
| Jun-20 | 6.9 | 139 | 114 | 14.4 | 5.1 | 0.8 | 5.1 | 32.8 | 1.3 | 2 | 59 | 0.1 | 1 | 0.04 | | 0.7 |
| Nov-20 | 6.9 | 143 | 95 | 13 | - | 1 | 4.6 | 8 | 2.5 | 2 | - | 0.1 | 1 | 0.01 | | 0.5 |
| Apr-21 | 6.6 | 139 | 83 | 17.7 | 5.63 | 2.1 | 4.94 | 7.5 | 2.5 | 2 | 59 | 0.1 | 1 | 0.01 | | 0.5 |
| Sep-21 | 7 | 133 | 103 | 14.1 | 5.97 | <2.00 | 5.35 | 7.03 | <5 | <2 | - | 0.1 | <0.1 | <0.01 | | <0.5 |
| May-22 | 6.7 | 141 | 117 | 15.8 | 5.55 | 2 | 4.9 | 9.4 | 2 | <2 | - | <0.1 | <0.1 | <0.01 | | <0.5 |
| Sep-22 | 6.9 | 142 | 115 | 15 | 6.5 | 1.2 | 4.9 | 16 | <5 | <2 | - | 0.2 | 2 | 0.02 | | <0.5 |
| Mar-23 | 6.5 | 139 | 77 | 14.1 | 5.59 | 2.1 | 4.37 | 9.6 | 2.8 | <2 | - | <0.1 | <0.1 | <0.01 | | <0.5 |
| Sep-23 | 7.2 | 208 | 133 | 17.6 | 20.8 | <2.0 | 4.68 | 10 | 7.1 | <2 | - | <0.1 | 2 | <0.01 | | <0.5 |
| Mar-24 | 6.4 | 155 | 180 | 17.5 | 5.05 | 2.1 | 4.8 | 9.4 | 2 | <2 | - | <0.1 | <0.1 | 0.02 | | 0.5 |
| Sep-24 | 6.6 | 147 | <2 | 14.5 | 6.21 | <2.0 | 4.98 | 9 | 3 | <2.0 |  | <0.1 | <0.1 | 0.03 | | <0.5 |
| Mar-25 | 6.3 | 146 | 93 | 17.6 | 5.62 | <2.0 | 4.65 | 8.8 | 2 | <2 |  | <0.1 | <0.1 | 0.06 | | <0.5 |
| **Avg** | **6.8** | **143.9** | **110.8** | **15.1** | **6.5** | **1.4** | **4.8** | **11.1** | **3.1** | **2.0** | **55.8** | **0.2** | **0.8** | **0.0** | | **0.6** |

Table 6 – Production Bore Water levels

|  |  |
| --- | --- |
| **Bore ID** | **Standing Water Level (mBGL)** |
| **Aug-15** |
| **Bore 1** | 24.5 |
| **Bore 2** | 24.2 |

Table 7 – Piezometer water levels

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Standing Water Level (mTOC1)** | | | | | | | | | | | | |
| **Piezo 1 shallow** | **Piezo 1 deep** | **Piezo 2 shallow** | **Piezo 2 deep** | **Piezo 3 shallow** | **Piezo 3 deep** | **Piezo 4 shallow** | **Piezo 4 deep** | **Piezo 5 shallow** | **Piezo 5 deep** | **Piezo 6 shallow** | **Piezo 6 deep** |
| **Feb-16** | n/a2 | 27.1 | n/a2 | 25.9 | n/a2 | 26 | n/a2 | 25.7 | n/a2 | 25.6 | n/a2 | 25.6 |
| **Apr-16** | n/a2 | 25.9 | n/a2 | 25.9 | n/a2 | 25.9 | n/a2 | 25.7 | n/a2 | 25.7 | n/a2 | 25.7 |
| **Oct-16** | n/a2 | 24.4 | n/a2 | n/a3 | n/a2 | 24.9 | n/a2 | n/a3 | n/a2 | n/a3 | n/a2 | n/a3 |
| **Mar-17** | n/a2 | 25.8 | n/a2 | 25.4 | n/a2 | 25.5 | n/a2 | 25.6 | n/a2 | 25.3 | n/a2 | 25.3 |
| **Jun-17** | n/a2 | 24.1 | n/a2 | 24.8 | n/a2 | 24.7 | n/a2 | 25.5 | n/a2 | 25 | n/a2 | 25 |
| **Sep-17** | n/a2 | 25 | n/a2 | 24.6 | n/a2 | 24.7 | n/a2 | 25.4 | n/a2 | 24.6 | n/a2 | 24.6 |
| **Dec-17** | n/a2 | 25.9 | n/a2 | 25.5 | n/a2 | 25.5 | n/a2 | 25.4 | n/a2 | 25.4 | n/a2 | 25.4 |
| **Mar-18** | n/a2 | 27.9 | n/a2 | 26.1 | n/a2 | 26.2 | n/a2 | 25.7 | n/a2 | 25.8 | n/a2 | 25.8 |
| **Jun-18** | n/a2 | 27.4 | n/a2 | 25.9 | n/a2 | 26.1 | n/a2 | 25.9 | n/a2 | 25.8 | n/a2 | 25.8 |
| **Sep-18** | n/a2 | 26.4 | n/a2 | 25.8 | n/a2 | 25.8 | n/a2 | 26 | n/a2 | 25.8 | n/a2 | 25.7 |
| **Dec-18** | n/a2 | 27.9 | n/a2 | 26.3 | n/a2 | 26.4 | n/a2 | 26.1 | n/a2 | 26 | n/a2 | 26 |
| **Mar-19** | n/a2 | 28.4 | n/a2 | 26.9 | n/a2 | 27.2 | n/a2 | 26.3 | n/a2 | 26.3 | n/a2 | 26.5 |
| **Jun-19** | n/a2 | 26.7 | n/a2 | 27.4 | n/a2 | 26.9 | n/a2 | 26.4 | n/a2 | 26.3 | n/a2 | 26.5 |
| **Sep-19** | n/a2 | 26.2 | n/a2 | 26.3 | n/a2 | 26.3 | n/a2 | 26.4 | n/a2 | 26.4 | n/a2 | 26.3 |
| **Dec-19** | n/a2 | 28.6 | n/a2 | 26.9 | n/a2 | 27.1 | n/a2 | 27 | n/a2 | 26.6 | n/a2 | 26.6 |
| **Mar-20** | n/a2 | 28 | n/a2 | 27.2 | n/a2 | 27.5 | n/a2 | 27.2 | n/a2 | 26.9 | n/a2 | 26.9 |
| **Jun-20** | n/a2 | 26.9 | n/a2 | 27 | n/a2 | 26.9 | n/a2 | 27 | n/a2 | 26.8 | n/a2 | 26.9 |
| **Nov-20** | n/a2 | 27.3 | n/a2 | 26.9 | n/a2 | 26.9 | 15.4 | 25.5 | n/a2 | 26.8 | n/a2 | 26.9 |
| **Apr-21** | n/a2 | 26.9 | n/a2 | 26.9 | n/a2 | 26.9 | n/a2 | 25.5 | n/a2 | 26.9 | n/a2 | 27.1 |
| **Sep-21** | n/a2 | 25.9 | n/a2 | 26.3 | n/a2 | 26.1 | n/a2 | 26.8 | n/a2 | 26.5 | n/a2 | 26.6 |
| **May-22** | n/a2 | 25.3 | n/a2 | 26 | n/a2 | 25.8 | n/a2 | 26.6 | n/a2 | 26.1 | n/a2 | 26.3 |
| **Sep-22** | n/a2 | 24.5 | n/a2 | 25.5 | n/a2 | 25.3 | n/a2 | 25.8 | n/a2 | 25.8 | n/a2 | 26 |
| **Mar-23** | n/a2 | 24.4 | n/a2 | 26 | n/a2 | 24.8 | n/a2 | 25.6 | n/a2 | 25.7 | n/a2 | 25.2 |
| **Sep-23** | n/a2 | 23.3 | 19.2 | 22.8 | n/a2 | 23.8 | n/a2 | 24.6 | 8.6 | 24 | n/a2 | 23.8 |
| **Mar-24** | n/a2 | 24.8 | n/a2 | 24.9 | n/a2 | 25.3 | n/a2 | 24.9 | n/a2 | 25.1 | n/a2 | 25.4 |
| **Sep-24** | n/a2 | 23.9 | n/a2 | 23.9 | n/a2 | 25.6 | n/a2 | 24.5 | n/a2 | 24.1 | n/a2 | 23.9 |
| **Mar-25** | n/a2 | 27.1 | n/a2 | 22.9 | n/a2 | 25.9 | n/a2 | 25.4 | n/a2 | 25.4 | n/a2 | 25.3 |
| **Average** | n/a | 26.3 | n/a | 26 | n/a | 26 | n/a | 26 | n/a | 25.9 | n/a | 25.9 |
| **Maximum** | n/a | 28.6 | n/a | 27.4 | n/a | 27.5 | n/a | 27.2 | n/a | 26.9 | n/a | 27.1 |
| **Minimum** | n/a | 23.3 | n/a | 22.8 | n/a | 23.8 | n/a | 24.6 | n/a | 24 | n/a | 23.8 |
| **Variation Sep-23** |  | 3 |  | 3.2 |  | 2.2 |  | 1.4 |  | 1.9 |  | 2.1 |