# WATER QUALITY CHARACTERSTICS OF KALYANI RIVER AT U/S PANTNAGAR IND. AREA, US NAGAR

| Month | pH | BOD mg/L | COD mg/L | Conductivity μmhos/cm | Temp ℃ | DO mg/L | TDS mg/L |
|---|---|---|---|---|---|---|---|
| **2025** | | | | | | | |
| Jan | 7.77 | 2.6 | 15 | 560 | 16.6 | 7.6 | 339 |
| Feb | 8.13 | 2.8 | 16 | 548 | 17.2 | 5.8 | 324 |
| Mar | 7.92 | 3 | 18 | 570 | 20.0 | 5.4 | 342 |
| Apr | 7.84 | 2.6 | 15 | 422 | 26.6 | 5.1 | 254 |
| May | | | | River was Dry | | | |
| June | 7.64 | 2.5 | 15 | 660 | 30.1 | 5.4 | 364 |
| July | 7.56 | 2.6 | 16 | 450 | 28.2 | 5.6 | 270 |
| Aug | 7.79 | 2.5 | 14 | 514 | 27 | 5.4 | 308 |
| Sep | 7.64 | 1.8 | 10 | 527 | 27.8 | 6.0 | 316 |
| Oct | 7.53 | 2.6 | 14 | 481 | 24.7 | 5.2 | 288 |
| Nov | 7.83 | 2.3 | 8 | 563 | 19.1 | 6.1 | 338 |
| Dec | 8.07 | 2.1 | 10 | 558 | 17.7 | 6.3 | 334 |
| **2024** | | | | | | | |
| Jan | 7.40 | 2.1 | 10.0 | 312 | 15 | 6.9 | 203 |
| Feb | 7.96 | 2.4 | 16.0 | 442 | 17 | 6.5 | 294 |
| Mar | 7.84 | 2.2 | 14.0 | 551 | 19 | 7.1 | 353 |
| Apr | 7.67 | 2.6 | 20.0 | 573 | 23 | 6.2 | 335 |
| May | 6.78 | 2.9 | 20.0 | 575 | 26 | 5.6 | 384 |
| June | | | | River Dry | | | |
| July | 7.41 | 2.8 | 20 | 476 | 29 | 5.4 | 292 |
| Aug | 7.41 | 3 | 24 | 384 | 28 | 5.2 | 235 |
| Sep | 7.27 | 2.8 | 20 | 338 | 26 | 6.2 | 205 |
| Oct | 7.48 | 3 | 21.6 | 530 | 26 | 5.5 | 321 |
| **2023** | | | | | | | |
| Jan | 7.40 | 3.0 | 16.0 | 386 | 13 | 7.2 | 281 |
| Feb | 7.60 | 3.0 | 20.0 | 467 | 15 | 6.8 | 311 |
| Mar | 7.50 | 2.8 | 16.0 | 482 | 20 | 6.9 | 321 |
| Apr | 7.50 | 2.9 | 16.0 | 469 | 20 | 6.2 | 315 |
| May | 7.30 | 2.6 | 16.0 | 428 | 29 | 6.4 | 296 |
| June | 7.70 | 3.0 | 20.0 | 451 | 29 | 5.2 | 306 |
| July | 7.40 | 2.8 | 16.0 | 322 | 30 | 5.4 | 211 |
| Aug | 7.10 | 3.0 | 20.0 | 412 | 28 | 5.0 | 215 |
| Sept | 7.40 | 2.8 | 20.0 | 339 | 28 | 5.2 | 213 |
| Oct | 7.30 | 2.9 | 20.0 | 364 | 23 | 5.1 | 247 |
| Nov | 7.80 | 2.7 | 16.0 | 404 | 20 | 5.4 | 276 |
| **2022** | | | | | | | |
| Jan | 7.6 | 7 | 24 | 440 | 10 | 4.6 | 310 |
| Feb | 7.50 | 8.0 | 20 | 430 | 22 | 4.5 | 288 |
| Mar | 7.60 | 7.0 | 20 | 480 | 25 | 4.3 | 325 |
| Apr | 7.60 | 8.0 | 24 | 490 | 28 | 4.0 | 328 |
| May | 7.30 | 10 | 32 | 445 | 28 | 3.0 | 300 |
| June | 7.0 | 8.0 | 30 | 508 | 30 | 3.0 | 340 |
| July | 7.60 | 6.0 | 24 | 540 | 28 | 3.6 | 360 |
| Aug | 7.40 | 8.0 | 26.4 | 352 | 28 | 3.5 | 232 |
| Sept | 7.90 | 7.6 | 24.08 | 319 | 28 | 5.2 | 210 |
| Oct | 7.60 | 7.2 | 22 | 340 | 24 | 5.6 | 224 |

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|---|---|---|---|---|---|---|---|
| **Nov** | 8.0 | 6.2 | 16 | 370 | 24 | 3.8 | 245 |
| **Dec** | 7.80 | 4.0 | 20.0 | 363 | 15 | 5.6 | 241 |
| **2021** | | | | | | | |
| **Jan** | 8.1 | 5.8 | 30 | 590 | 14 | 3.4 | 377 |
| **Feb** | 7.0 | 4.0 | 20 | 625 | 24 | 7.6 | 418 |
| **Mar** | 7.20 | 8.0 | 32 | 675 | 24 | 5.60 | 452 |
| **Apr** | 7.0 | 8.40 | 35 | 698 | 25 | 5.30 | 472 |
| **May** | 7.80 | 8.20 | 33 | 688 | 22 | 5.10 | 482 |
| **June** | 7.70 | 8.0 | 32 | 680 | 22 | 6.0 | 456 |
| **July** | 7.80 | 6.50 | 30 | 550 | 28 | 3.90 | 380 |
| **Aug** | 7.60 | 6.0 | 27.10 | 521 | 31 | 4.0 | 349 |
| **Sep** | 7.9 | 6.4 | 32 | 534 | | 3.8 | 357 |
| **Oct** | 7.7 | 10 | 32 | 520 | | 3.50 | 352 |
| **Nov** | 7.3 | 12.8 | 34.1 | 533 | | 3.7 | 357.11 |
| **Dec** | 7.20 | 10 | 32 | 556 | 28 | 4.0 | 372.5 |
| **202** | | | | | | | |
| **Jan** | 7.2 | 5.2 | 10 | 486 | 10 | 6.8 | 257 |
| **Feb** | 7.54 | 8.0 | 25 | 540 | 30 | 4.4 | 248 |
| **Mar** | 8.5 | 6 | 30 | 490 | 31 | 6 | 288 |
| **Apr** | 7.4 | 3 | 18 | 450 | 33 | 8 | 311 |
| **May** | 7.6 | 4.6 | 28 | 460 | 39 | 6.2 | 460 |
| **June** | 7.2 | 6.4 | 36 | 470 | 37 | 3.1 | 319 |
| **July** | 7.8 | 10 | 50 | 270 | 32 | 2.8 | 179 |
| **Aug** | 7.38 | 3.90 | 14 | 260 | 33 | 5.7 | 178 |
| **Sep** | 7.85 | 4.50 | 12.6 | 270 | 34 | 3.9 | 175 |
| **Oct** | 7.3 | 5.40 | 19 | 300 | 33 | 4.80 | 192 |
| **Nov** | 7.38 | 5.20 | 20 | 310 | 19 | 4.4 | 238 |
| **Dec** | 7.10 | 5.7 | 21 | 340 | 19 | 4.1 | 258 |
| **Average** | **7.52** | **5.66** | **23.63** | **387.17** | **29.17** | **5.02** | **258.58** |
| **Min-Max** | **(7.1-8.5)** | **(3-10)** | **(10-50)** | **(260-540)** | **(10-39)** | **(2.8-8)** | **(175-460)** |
| **2019** | | | | | | | |
| **Jan** | 7.1 | 4 | 11 | 280 | 12 | 6.2 | 188 |
| **Feb** | 7.7 | 4 | 14 | 381 | 16 | 6 | 208 |
| **Mar** | 7.3 | 4.6 | 18 | 510 | 26 | 5.2 | 267 |
| **Apr** | 7.5 | 5.2 | 28 | 460 | 32 | 6.0 | 272 |
| **May** | 7.4 | 4.6 | 24 | 480 | 38 | 5.8 | 267 |
| **June** | 7.7 | 4.2 | 28 | 520 | 37 | 6.4 | 264 |
| **July** | 7.4 | 6 | 30 | 284 | 30 | 3.6 | 185 |
| **Aug** | 7.2 | 6.2 | 30 | 430 | 31 | 4.0 | 234 |
| **Sep** | 7.2 | 6.0 | 20.0 | 440 | 32 | 4.0 | 286 |
| **Oct** | 7.8 | 6.2 | 20 | 412 | 30 | 5.2 | 268 |
| **Nov** | 7.5 | 6.0 | 40 | 340 | 22 | 4.2 | 228 |
| **Dec** | 7.4 | 10 | 20 | 392 | 11 | 3.2 | 263 |
| **Average** | **7.43** | **5.58** | **23.58** | **410.75** | **26.42** | **4.98** | **244.17** |
| **Min-Max** | **(7.1-7.8)** | **(4-10)** | **(11-40)** | **(280-520)** | **(11-38)** | **(3.2-6.4)** | **(185-286)** |
| **2018** | | | | | | | |
| **Jan** | 7.2 | 3.2 | 18 | 390 | 17 | 8.2 | 248 |
| **Feb** | 7.2 | 2.2 | 16 | 450 | 27 | 8 | 298 |
| **Mar** | | | | River Dry | | | |
| **Apr** | | | | River Dry | | | |
| **May** | | | | River Dry | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **June** | 7.2 | 3.2 | 8 | 440 | 30 | 7.2 | 284 |
| **July** | 7.6 | 2.6 | 16 | 510 | 28 | 7.2 | 328 |
| **Aug** | 7.6 | 1.8 | 18 | 460 | 27 | 7.8 | 288 |
| **Sep** | 7.5 | 4 | 14 | 390 | 27 | 7.2 | 248 |
| **Oct** | 7.3 | 8 | 28 | 410 | 25 | 6.2 | 268 |
| **Nov** | 7.2 | 4.2 | 18 | 320 | 22 | 6.8 | 210 |
| **Dec** | 7.4 | 3.2 | 10 | 370 | 18 | 6.4 | 234 |
| **Average** | **7.35** | **3.6** | **16.22** | **415.55** | **24.55** | **7.22** | **267.33** |
| **Min-Max** | 7.2-7.6) | (1.8-8) | (8-28) | (320-460) | (17-30) | (6.2-8.2) | (210-328) |

# WATER QUALITY CHARACTERSTICS OF KALYANI RIVER AT D/S PANTNAGAR INDUSTRIAL AREA, US NAGAR

| Month | pH | BOD mg/L | COD mg/L | Conductivity µmhos/cm | Temp ℃ | DO mg/L | TDS mg/L |
|---|---|---|---|---|---|---|---|
| **2025** | | | | | | | |
| Jan | 6.89 | 45 | 240 | 779 | 18.8 | 1.0 | 482 |
| Feb | 6.65 | 50 | 280 | 729 | 20.6 | 0.6 | 436 |
| Mar | 6.87 | 55 | 220 | 765 | 22.8 | Nill | 459 |
| Apr | 7.12 | 50 | 240 | 643 | 29.7 | 0 | 389 |
| May | 6.66 | 60 | 294 | 671 | 29.0 | Nil | 406 |
| June | 6.91 | 52 | 259 | 796 | 31.4 | Nil | 478 |
| July | 7.23 | 45 | 240 | 629 | 28.2 | Nil | 378 |
| Aug | 7.51 | 16 | 130 | 578 | 29 | 1.9 | 347 |
| Sep | 7.21 | 18 | 110 | 866 | 28.6 | 1.7 | 520 |
| Oct | 7.17 | 15 | 80 | 640 | 25.1 | 2.1 | 384 |
| Nov | 7.42 | 22 | 140 | 741 | 22.6 | 2.2 | 445 |
| Dec | 7.51 | 26 | 160 | 705 | 19.6 | 1.5 | 423 |
| **2024** | | | | | | | |
| Jan | 7.20 | 26.0 | 176 | 456 | 17 | 2.2 | 294 |
| Feb | 6.93 | 28.0 | 192 | 628 | 19 | 1.8 | 418 |
| Mar | 7.13 | 30.0 | 208 | 702 | 22 | 1.6 | 462 |
| Apr | 6.34 | 32.0 | 240 | 729 | 24 | 0.8 | 432 |
| May | 7.53 | 36.0 | 272 | 754 | 27 | Nil | 505 |
| June | 6.75 | 42.0 | 304 | 916 | 33 | Nil | 554 |
| July | 6.81 | 30 | 160 | 714 | 30 | 3.1 | 424 |
| Aug | 6.81 | 34 | 192 | 690 | 29 | 2.4 | 416 |
| Sep | 7.08 | 28 | 152 | 494 | 28 | 2.9 | 304 |
| Oct | 7.1 | 32 | 176 | 668 | 27 | 2.2 | 404 |
| **2023** | | | | | | | |
| Jan | 7.20 | 16.0 | 128.0 | 399 | 12 | 3.5 | 292 |
| Feb | 7.30 | 25.0 | 160.0 | 529 | 19 | 2.9 | 352 |
| Mar | 7.10 | 23.0 | 144.0 | 625 | 22 | 3.0 | 408 |
| Apr | 7.40 | 24.0 | 136.0 | 597 | 20 | 2.8 | 392 |
| May | 7.50 | 28.0 | 140.0 | 564 | 29 | 2.4 | 382 |
| June | 7.20 | 26.0 | 132.0 | 456 | 33 | 2.4 | 315 |
| July | 7.40 | 12.0 | 84.0 | 396 | 28 | 1.0 | 710 |
| Aug | 7.00 | 14.0 | 92.0 | 420 | 28 | 4.0 | 326 |
| Sept | 6.80 | 15.0 | 92.0 | 408 | 29 | 4.0 | 285 |
| Oct | 7.40 | 20.0 | 136.0 | 484 | 25 | 2.8 | 334 |
| Nov | 7.20 | 24.0 | 160.0 | 498 | 22 | 2.4 | 338 |
| **2022** | | | | | | | |
| Jan | 7.4 | 19 | 140 | 730 | 10 | 2.9 | 492 |
| Feb | 7.30 | 20 | 144 | 750 | 22 | 2.5 | 502 |
| Mar | 7.50 | 22.5 | 160 | 710 | 25 | 2.0 | 518 |
| Apr | 7.70 | 24 | 168 | 720 | 28 | 1.8 | 524 |
| May | 7.0 | 28 | 190 | 660 | 28 | 1.5 | 440 |
| June | 6.80 | 34 | 220 | 1100 | 30 | 1.0 | 737 |
| July | 7.10 | 32 | 216 | 1060 | 28 | 1.0 | 710 |
| Aug | 7.30 | 28.0 | 211 | 368 | 31 | 1.4 | 244 |
| Sept | 7.0 | 26 | 204 | 331 | 28 | 0.8 | 219 |

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|---|---|---|---|---|---|---|---|
| Oct | 7.30 | 28 | 200 | 399 | 26 | 3.0 | 265 |
| Nov | 7.20 | 26 | 180 | 447 | 24 | 2.3 | 297 |
| Dec | 7.10 | 22 | 140 | 374 | 16 | 2.4 | 248 |
| **2021** | | | | | | | |
| Jan | 7.30 | 22 | 80 | 630 | 14 | 1.20 | 425 |
| Feb | 8.20 | 28 | 152 | 1200 | 23 | 0.20 | 828 |
| Mar | 8.0 | 30 | 156 | 1210 | 23 | 0.10 | 840 |
| Apr | 8.20 | 28 | 150 | 1237 | 24 | 0.40 | 877 |
| May | 8.50 | 23 | 132 | 1203 | 23 | 0.50 | 821 |
| June | 8.30 | 22 | 121 | 1200 | 22 | 0.80 | 804 |
| July | 6.90 | 26 | 200 | 1200 | 28 | 1.0 | 918 |
| Aug | 7.40 | 18 | 190 | 1108 | 31 | 2.10 | 742 |
| Sep | 7.6 | 21.30 | 220 | 1123 | | 1.9 | 752 |
| Oct | 6.5 | 26.0 | 210 | 1250 | | 1.50 | 938 |
| Nov | 6.9 | 29 | 201 | 1233 | | 1.8 | 826.11 |
| Dec | 7.50 | 26 | 195 | 1176 | 28 | 2.2 | 787 |
| **2020** | | | | | | | |
| Jan | 7.3 | 16 | 40 | 562 | 10 | 1.4 | 298 |
| Feb | 7.16 | 20 | 40 | 580 | 30 | 1.6 | 304 |
| Mar | 7.9 | 6.8 | 60 | 540 | 31 | 2.8 | 317 |
| Apr | 7.5 | 5.2 | 36 | 410 | 33 | 3.7 | 269 |
| May | 7.0 | 6.4 | 44 | 456 | 39 | 3.1 | 310 |
| June | 7.8 | 8.2 | 44 | 420 | 37 | 2.9 | 282 |
| July | 7.4 | 15 | 80 | 760 | 31 | 2.5 | 502 |
| Aug | 7.48 | 4.10 | 14 | 566 | 32 | 7.30 | 286 |
| Sep | 7.34 | 8.0 | 44 | 730 | 32 | 2.3 | 287 |
| Oct | 7.60 | 14 | 48 | 550 | 33 | 2.2 | 372 |
| Nov | 7.2 | 15 | 70 | 560 | 18 | 2.3 | 386 |
| Dec | 6.9 | 13.5 | 79 | 580 | 10 | 2.0 | 396 |
| **Average** | 7.38 | 11.02 | 49.92 | 559.50 | 28.00 | 2.84 | 334.08 |
| **Min-Max** | (6.9-7.9) | (4.1-20) | (14-80) | (410-760) | (10-39) | (1.4-7.3) | (269-502) |
| **2019** | | | | | | | |
| Jan | 6.7 | 24 | 68 | 590 | 14 | 3.20 | 389 |
| Feb | 6 | 20 | 56 | 530 | 15 | 2.8 | 356 |
| Mar | 7.6 | 14 | 28 | 490 | 25 | 4.8 | 304 |
| Apr | 7.2 | 12 | 24 | 510 | 30 | 2.0 | 362 |
| May | 6.8 | 10 | 26 | 520 | 36 | 2.4 | 292 |
| June | 7.4 | 6 | 32 | 560 | 38 | 2 | 297 |
| July | 7.4 | 12 | 28 | 389 | 31 | 1.8 | 407 |
| Aug | 7.2 | 6.0 | 30 | 520 | 30 | 6.4 | 286 |
| Sep | 6.5 | 4.0 | 40 | 520 | 30 | 1.4 | 286 |
| Oct | 7.2 | 6.4 | 60 | 484 | 29 | 1.8 | 315 |
| Nov | 7.0 | 9.0 | 10 | 423 | 21 | 2.2 | 284 |
| Dec | 7.3 | 22 | 60 | 425 | 11 | 1.8 | 285 |
| **2018** | | | | | | | |
| Jan | 7.9 | 8.2 | 38 | 620 | 17 | 5.20 | 412 |
| Feb | 7.4 | 6 | 36 | 580 | 22 | 5.20 | 377 |
| Mar | 6.98 | 20 | 84 | 230 | 27 | 1.80 | 339 |
| Apr | 6.86 | 80 | 304 | 470 | 28 | 0.60 | 300 |
| May | 7.1 | 52 | 200 | 480 | 30 | 1.20 | 317 |
| June | 6.4 | 48 | 190 | 580 | 32 | 1.20 | 376 |

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|---|---|---|---|---|---|---|---|
| **July** | 7.3 | 44 | 152 | 570 | 28 | 1.80 | 374 |
| **Aug** | 7.8 | 30 | 118 | 550 | 28 | 3.20 | 352 |
| **Sep** | 6.9 | 34 | 138 | 580 | 28 | 2.80 | 376 |
| **Oct** | 7.3 | 36 | 130 | 540 | 27 | 2.00 | 352 |
| **Nov** | 7.6 | 26 | 88 | 520 | 23 | 2.60 | 336 |
| **Dec** | 6.8 | 30 | 80 | 580 | 18 | 2.80 | 378 |
| **Average** | **7.19** | **34.51** | **129.83** | **525** | **25.66** | **2.53** | **357.41** |
| **Min-Max** | (6.4-7.9) | (6-80) | (36-304) | (230-620) | (17-32) | (0.60-5.20) | (300-412) |