

# Plant Yates

## Monthly Dewatering Results<sup>1</sup>

### September 2020

| Parameter              | Units | Effluent Concentration |                        |                        | Permit Limits |           |           |
|------------------------|-------|------------------------|------------------------|------------------------|---------------|-----------|-----------|
|                        |       | Daily Min <sup>2</sup> | Daily Avg <sup>2</sup> | Daily Max <sup>2</sup> | Daily Min     | Daily Avg | Daily Max |
| Flow                   | MGD   | 0.00                   | 0.74                   | 1.05                   | ***           | ***       | ***       |
| pH                     | SU    | 6.6                    | ***                    | 7.9                    | 6.0           | ***       | 9.0       |
| Total Suspended Solids | mg/L  | ND <sup>3</sup>        | ND                     | ND                     | ***           | 30.0      | 100.0     |
| Oil and Grease         | mg/L  | ND                     | ND                     | ND                     | ***           | 15.0      | 20.0      |

| Parameter                | Units | Effluent Concentration |          |           |           |                   | Daily Average |
|--------------------------|-------|------------------------|----------|-----------|-----------|-------------------|---------------|
|                          |       | Week 1                 | Week 2   | Week 3    | Week 4    | Week 5            |               |
|                          |       | 9/2/2020               | 9/9/2020 | 9/15/2020 | 9/23/2020 | Sampled 10/1/2020 |               |
| Turbidity                | NTU   | 1.7                    | 3.3      | 2.1       | 1.6       |                   | 2.2           |
| Total Dissolved Solids   | mg/L  | 426                    | 510      | 376       | 207       |                   | 380           |
| Ammonia                  | mg/L  | 1.60                   | 1.00     | 1.10      | 0.65      |                   | 1.09          |
| Total Kjeldahl Nitrogen  | mg/L  | 1.60                   | 0.99     | 1.30      | 0.82      |                   | 1.18          |
| Nitrate-Nitrite          | mg/L  | 0.39                   | 0.47     | 0.30      | 0.37      |                   | 0.38          |
| Organic Nitrogen         | mg/L  | ND                     | ND       | ND        | ND        |                   | ND            |
| Phosphorus               | mg/L  | ND                     | ND       | 0.06      | ND        |                   | 0.02          |
| Ortho-Phosphorus         | mg/L  | ND                     | ND       | ND        | ND        |                   | ND            |
| Biological Oxygen Demand | mg/L  | ND                     | ND       | 2.3       | ND        |                   | 0.6           |
| Hardness                 | mg/L  | 236                    | 250      | 203       | 94        |                   | 196           |

| Parameter             | Units | Effluent Concentration <sup>4</sup> |          |           |           |                   | Calculated Receiving Water Concentration <sup>4</sup> |          |           |           |                   | Water Quality Criteria <sup>5</sup> |                    |                      |
|-----------------------|-------|-------------------------------------|----------|-----------|-----------|-------------------|---|----------|-----------|-----------|-------------------|-------------------------------------|--------------------|----------------------|
|                       |       | Week 1                              | Week 2   | Week 3    | Week 4    | Week 5            | Week 1  | Week 2   | Week 3    | Week 4    | Week 5            | Average                             | Acute <sup>6</sup> | Chronic <sup>6</sup> |
|                       |       | 9/2/2020                            | 9/9/2020 | 9/15/2020 | 9/23/2020 | Sampled 10/1/2020 | 9/2/2020  | 9/9/2020 | 9/15/2020 | 9/23/2020 | Sampled 10/1/2020 |                                     |                    |                      |
| Arsenic               | µg/L  | ND                                  | ND       | ND        | ND        |                   | ***   | ***      | ***       | ***       |                   | ***                                 | 340                | 150                  |
| Cadmium               | µg/L  | ND                                  | ND       | ND        | ND        |                   | ***   | ***      | ***       | ***       |                   | ***                                 | 1                  | 0.43                 |
| Chromium <sup>7</sup> | µg/L  | ND                                  | ND       | ND        | ND        |                   | ***   | ***      | ***       | ***       |                   | ***                                 | 16                 | 11                   |
| Copper                | µg/L  | ND                                  | ND       | ND        | ND        |                   | ***   | ***      | ***       | ***       |                   | ***                                 | 7                  | 5                    |
| Lead                  | µg/L  | ND                                  | 18.7     | ND        | ND        |                   | ***   | 0.0295   | ***       | ***       |                   | 0.0074                              | 30                 | 1.2                  |
| Nickel                | µg/L  | ND                                  | 5.3      | ND        | 5.2       |                   | ***   | 0.0084   | ***       | 0.0082    |                   | 0.0041                              | 260                | 29                   |
| Selenium <sup>8</sup> | µg/L  | ND                                  | ND       | ND        | ND        |                   | ***   | ***      | ***       | ***       |                   | ***                                 | ***                | 5                    |
| Zinc                  | µg/L  | ND                                  | ND       | ND        | ND        |                   | ***   | ***      | ***       | ***       |                   | ***                                 | 65                 | 65                   |
| Mercury               | ng/L  | 0.7                                 | ND       | 0.6       | ND        |                   | 0.0010  | ***      | 0.0009    | ***       |                   | 0.0005                              | 1400               | 12                   |

<sup>1</sup> Tetra Tech verifies the correct laboratory analysis methods were used, any applicable permit limits have been met and other results are protective of Georgia EPD's water quality standards.

<sup>2</sup> Daily Min and Daily Max are the lowest and highest values for any day in the month. Daily Avg is the arithmetic average of all daily values during the entire month.

<sup>3</sup> ND = Not Detected (below the lab's reporting limit).

<sup>4</sup> Calculated Receiving Water Concentration shows the effluent concentration at the discharge once it has fully mixed in the receiving waterbody. This value is calculated as a dissolved concentration for an appropriate comparison to the numeric water quality criteria, which are also in the dissolved form. Consistent with Georgia EPD, non-detectable effluent concentrations are not translated into Calculated Receiving Water Concentrations.

<sup>5</sup> Numeric Water Quality Criteria is the maximum concentration of a parameter (calculated at a default hardness of 50 mg/L as calcium carbonate) established for the receiving waterbody that will be protective of the designated use per Georgia EPD's rules and regulations. Calculated Receiving Water Concentrations less than these criteria are protective of the waterbody.

<sup>6</sup> Acute (short-term) water quality criterion to be compared with the weekly calculated receiving water concentration; Chronic (long-term) water quality criterion to be compared with the average calculated receiving water concentration.

<sup>7</sup> Numeric water quality criterion shown is for Hexavalent Chromium.

<sup>8</sup> The numeric water quality criterion shown is the chronic (long-term) water quality criterion for selenium since this parameter does not have an acute (short-term) water quality criterion.

\*\*\* = Not Applicable

mg/L = milligrams per liter = parts per million; µg/L = micrograms per liter = parts per billion; ng/L = nanograms per liter = parts per trillion; SU = Standard Units; MGD = Million Gallons Day



# Plant Yates

Prepared by:



## Monthly Instream Results<sup>1</sup>

September 2020

| Parameter <sup>3</sup> | Units | Chattahoochee River <sup>2</sup> |                        |                      |                        |
|------------------------|-------|----------------------------------|------------------------|----------------------|------------------------|
|                        |       | 9/2/2020<br>Upstream             | 9/2/2020<br>Downstream | 9/9/2020<br>Upstream | 9/9/2020<br>Downstream |
| pH                     | SU    | 6.6                              | 6.9                    | 6.9                  | 7.4                    |
| TSS                    | mg/L  | 74.5                             | 46.0                   | 16.5                 | 7.5                    |
| O&G                    | mg/L  | ND                               | ND                     | ND                   | ND                     |
| Turbidity              | NTU   | 64.0                             | 80.0                   | 22.0                 | 17.0                   |
| TDS                    | mg/L  | 81                               | 72                     | 105                  | 107                    |
| BOD                    | mg/L  | ND                               | ND                     | ND                   | ND                     |
| Arsenic                | µg/L  | ND                               | ND                     | ND                   | ND                     |
| Cadmium                | µg/L  | ND                               | ND                     | ND                   | ND                     |
| Chromium               | µg/L  | ND                               | ND                     | 9                    | ND                     |
| Copper                 | µg/L  | ND                               | 7.7                    | 11                   | ND                     |
| Lead                   | µg/L  | 2.2                              | 5.3                    | 10.5                 | ND                     |
| Mercury                | ng/L  | 6.9                              | 6.7                    | 2.3                  | 1.1                    |
| Nickel                 | µg/L  | ND                               | ND                     | ND                   | ND                     |
| Selenium               | µg/L  | ND                               | ND                     | ND                   | ND                     |
| Zinc                   | µg/L  | 11.7                             | 26.2                   | 54.0                 | ND                     |
| Ammonia                | mg/L  | ND                               | ND                     | ND                   | ND                     |
| TKN                    | mg/L  | 0.69                             | 1.40                   | ND                   | 0.66                   |
| Nitrate-Nitrite        | mg/L  | 1.30                             | 1.30                   | 3.00                 | 3.00                   |
| Organic Nitrogen       | mg/L  | 0.67                             | 1.40                   | ND                   | 0.66                   |
| Phosphorus             | mg/L  | 0.08                             | 0.14                   | 0.20                 | 0.05                   |
| Ortho-phosphorus       | mg/L  | ND                               | 0.02                   | 0.03                 | 0.03                   |
| Hardness               | mg/L  | 23                               | 26                     | 43                   | 37                     |

1 Tetra Tech verifies the correct laboratory analysis methods were used.

2 Chattahoochee River measured 1000 ft upstream and 1000 ft downstream from the final discharge at Outfall 01.

3 Metals results are total recoverable.

4 ND = Non-detect

mg/L = milligrams per liter = parts per million; µg/L = micrograms per liter = parts per billion; ng/L = nanograms per liter = parts per trillion; SU = Standard Units; MGD = Million Gallons Day