Georgia Power

# Plant Bowen

## Monthly Dewatering Results[1]

### March 2019

Prepared by: TETRA TECH

| Parameter | Units | Effluent Concentration | | Permit Limits | |
|---|---|---|---|---|---|
| | | Minimum | Maximum | Daily Avg | Daily Max |
| Flow | MGD | 0 | 0.78 | *** | *** |
| pH | SU | 6.8 | 7.9 | 6.0 - 9.0 | |
| Total Suspended Solids | mg/L | 3.2 | 41.0 | 30.0 | 100.0 |
| Oil and Grease | mg/L | ND[2] | ND | 15.0 | 20.0 |

| Parameter | Units | Measured Effluent Concentration | | | |
|---|---|---|---|---|---|
| | | 3/5/2019 | 3/13/2019 | 3/18/2019 | 3/26/2019 |
| Turbidity | NTU | 5.8 | 4.0 | 3.5 | 10.0 |
| Total Dissolved Solids | mg/L | 1,500 | 1,500 | 1,300 | 2,000 |
| Ammonia | mg/L | ND | 0.09 | 0.085 | 0.29 |
| Total Kjeldahl Nitrogen | mg/L | 0.36 | 0.37 | 0.26 | 0.34 |
| Nitrate-Nitrite | mg/L | ND | ND | ND | 0.1 |
| Organic Nitrogen | mg/L | 0.36 | 0.28 | ND | ND |
| Phosphorus | mg/L | ND | ND | ND | ND |
| Ortho-Phosphorus | mg/L | ND | ND | ND | ND |
| Biological Oxygen Demand | mg/L | ND | ND | ND | 4.9 |
| Hardness | mg/L | 830 | 870 | 890 | 1,100 |

| Parameter | Units | Effluent Concentration[3] | | | | Calculated River Value[3] | | | | Water Quality Standard[4] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 3/5/2019 | 3/13/2019 | 3/18/2019 | 3/26/2019 | 3/5/2019 | 3/13/2019 | 3/18/2019 | 3/26/2019 | |
| Arsenic | µg/L | 6.8 | ND | ND | 2.0 | 0.0270 | *** | *** | *** | 340 |
| Cadmium | µg/L | ND | ND | ND | ND | *** | *** | *** | *** | 1 |
| Chromium[5] | µg/L | ND | ND | ND | ND | *** | *** | *** | *** | 16 |
| Copper | µg/L | ND | ND | ND | 4.30 | *** | *** | *** | 0.015 | 7 |
| Lead | µg/L | ND | ND | ND | 1.30 | *** | *** | *** | 0.003 | 30 |
| Nickel | µg/L | 8.2 | 8.7 | 8.0 | 17.0 | 0.034 | 0.041 | 0.039 | 0.077 | 260 |
| Selenium[6] | µg/L | 25.0 | 19.0 | 18.0 | 6.0 | 0.131 | 0.099 | 0.094 | 0.031 | 5 |
| Zinc | µg/L | ND | ND | ND | 360.0 | *** | *** | *** | 1.197 | 65 |
| Mercury | ng/L | 1.1 | 4.1 | 4.0 | 4.6 | 0.0013 | 0.0037 | 0.0033 | 0.0047 | 1400 |

1 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.

2 ND = Not Detected.

3 Calculated River Value shows what the total effluent concentration looks like 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 river values.

4 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 receving waterbody that will be protective of the designated use per Georgia EPD's rules and regulations. Calculated River Values less than these criteria are protective of the waterbody.

5 Numeric water quality criterion shown is for Hexavalent Chromium.

6 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 Bowen

Prepared by: TETRA TECH

## Monthly Instream Results[1]

### March 2019

| Parameter[3] | Units | Etowah River[2] | | | |
|---|---|---|---|---|---|
| | | 3/13/2019 UpStream | 3/13/2019 DownStream | 3/18/2019 UpStream | 3/18/2019 DownStream |
| pH | SU | 5.81 | 5.94 | 7.10 | 7.03 |
| TSS | mg/L | 11.0 | 11.0 | 11.0 | 12.0 |
| O&G | mg/L | ND | ND | ND | ND |
| Turbidity | NTU | 16.0 | 15.0 | 15 | 11 |
| TDS | mg/L | ND | 46 | 40 | 41 |
| 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 | ND | ND |
| Copper | µg/L | ND | ND | ND | ND |
| Lead | µg/L | ND | ND | ND | ND |
| Mercury | ng/L | 5.7 | 3.1 | 2.8 | 3.0 |
| Nickel | µg/L | ND | ND | ND | ND |
| Selenium | µg/L | ND | ND | ND | ND |
| Zinc | µg/L | ND | ND | ND | ND |
| Ammonia | mg/L | ND | ND | ND | ND |
| TKN | mg/L | 0.33 | 0.36 | 0.36 | 0.22 |
| Nitrate-Nitrite | mg/L | 0.34 | 0.35 | 0.46 | 0.44 |
| Organic Nitrogen | mg/L | 0.33 | 0.36 | 0.36 | 0.22 |
| Phosphorus | mg/L | ND | ND | ND | ND |
| Ortho-phosphorus | mg/L | ND | ND | ND | ND |
| Hardness | mg/L | 17 | 17 | 17 | 17 |

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

2 Etowah River measured 1000ft upstream and 1000ft downstream of the Final Plant Discharge (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