**Hugo**

<table>
<thead>
<tr>
<th>Sample Period</th>
<th>Times Visited</th>
<th>Sampling Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2016 - August 2017</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**General**
- **Location**: Choctaw County
- **Impoundment**: 1974
- **Area**: 13,250 acres
- **Capacity**: 157,600 acre-feet
- **Purposes**: Flood Control, Water Supply, Water Quality Control, Fish and Wildlife, and Recreation

**Parameters**

<table>
<thead>
<tr>
<th>Parameter (Descriptions)</th>
<th>Result</th>
<th>Notes/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In Situ</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Turbidity</td>
<td>36 NTU</td>
<td>88% of values &gt; OWQS of 25 NTU</td>
</tr>
<tr>
<td>Average Secchi Disk Depth</td>
<td>37 cm</td>
<td></td>
</tr>
<tr>
<td>Water Clarity Rating</td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>Chlorophyll-a</td>
<td>14.35 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Trophic State Index</td>
<td>57</td>
<td>Previous value = 61</td>
</tr>
<tr>
<td>Trophic Class</td>
<td>Eutrophic</td>
<td></td>
</tr>
<tr>
<td><strong>Profile</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salinity</td>
<td>0.02 – 134.9 ppt</td>
<td></td>
</tr>
<tr>
<td>Specific Conductivity</td>
<td>54.3 – 142.2 µS/cm</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>6.3 – 8.3 pH units</td>
<td>Only 5.3% values &lt; 6.5 pH units</td>
</tr>
<tr>
<td>Oxidation-Reduction Potential</td>
<td>181.8 to 548.5 mV</td>
<td></td>
</tr>
<tr>
<td>Dissolved Oxygen</td>
<td>Up to 50% of water column &lt; 2 mg/L in August</td>
<td></td>
</tr>
<tr>
<td><strong>Nutrients</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface Total Nitrogen</td>
<td>0.4 mg/L to 0.76 mg/L</td>
<td></td>
</tr>
<tr>
<td>Surface Total Phosphorus</td>
<td>0.047 mg/L to 0.082 mg/L</td>
<td></td>
</tr>
<tr>
<td>Nitrogen to Phosphorus Ratio</td>
<td>9:1</td>
<td>Phosphorus limited</td>
</tr>
</tbody>
</table>

**Beneficial Uses**

| Fish & Wildlife Propagation | NS   |
| Aesthetics                 | S    |
| Agriculture                | N/A  |
| Primary Body Contact Recreation | S   |
| Public & Private Water Supply | S   |

*Standards revision, true color is for permitting purposes only.

**Notes**

- **NTU** = nephelometric turbidity units
- **µS/cm** = microsiemens per centimeter
- **E. coli** = Escherichia coli
- **OWQS** = Oklahoma Water Quality Standards
- **mg/L** = milligrams per liter
- **µS/cm** = microsiemens/cm
- **ppt** = parts per thousand
- **En** = Enterococci

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