## Lugert-Altus

### Sample Period

<table>
<thead>
<tr>
<th></th>
<th>Times Visited</th>
<th>Sampling Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2015 - August 2016</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

### General

- **Location**: Greer County
- **Impoundment**: 1947
- **Area**: 6,260 acres
- **Capacity**: 132,830 acre-feet
- **Purposes**: Water Supply, Flood Control, Irrigation

### Parameters

<table>
<thead>
<tr>
<th>Parameter (Descriptions)</th>
<th>Result</th>
<th>Notes/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Turbidity</td>
<td>10 NTU</td>
<td>0% of values &gt;OWQS of 25 NTU</td>
</tr>
<tr>
<td>Average Secchi Depth</td>
<td>53 cm</td>
<td></td>
</tr>
<tr>
<td>Water Clarity Rating</td>
<td>Average</td>
<td></td>
</tr>
<tr>
<td>Chlorophyll-a</td>
<td>18.7 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Trophic State Index</td>
<td>59</td>
<td>Previous Value= 51</td>
</tr>
<tr>
<td>Trophic Class</td>
<td>Eutrophic</td>
<td></td>
</tr>
<tr>
<td>Salinity</td>
<td>1.04 – 1.40 ppt</td>
<td></td>
</tr>
<tr>
<td>Specific Conductivity</td>
<td>2023.6 – 2685.9 µS/cm</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>7.77 – 8.27 pH units</td>
<td></td>
</tr>
<tr>
<td>Oxidation-Reduction Potential</td>
<td>214.7 – 528.8 mV</td>
<td></td>
</tr>
<tr>
<td>Dissolved Oxygen</td>
<td>All readings above 2.0 mg/L</td>
<td></td>
</tr>
<tr>
<td>Surface Total Nitrogen</td>
<td>0.78 mg/L to 0.97 mg/L</td>
<td></td>
</tr>
<tr>
<td>Surface Total Phosphorus</td>
<td>0.038 mg/L to 0.074 mg/L</td>
<td></td>
</tr>
<tr>
<td>Nitrogen to Phosphorus Ratio</td>
<td>18:1</td>
<td>Phosphorus limited</td>
</tr>
</tbody>
</table>

### Nutrients

- **Surface Total Nitrogen**: 0.78mg/L to 0.97 mg/L
- **Surface Total Phosphorus**: 0.038 mg/L to 0.074 mg/L
- **Nitrogen to Phosphorus Ratio**: 18:1

**Click to learn more about Beneficial Uses**

<table>
<thead>
<tr>
<th>Beneficial Uses</th>
<th>Turbidity</th>
<th>pH</th>
<th>Dissolved Oxygen</th>
<th>Metals</th>
<th>TSI</th>
<th>True Color</th>
<th>Sulfates</th>
<th>Chlorides</th>
<th>Total Dissolved Solids</th>
<th>Enterro. &amp; E. coli</th>
<th>Chlor-a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish &amp; Wildlife Propagation</td>
<td>NS</td>
<td>S</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aesthetics</td>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td></td>
<td></td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td>S</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary Body Contact Recreation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NEI</td>
</tr>
<tr>
<td>Public &amp; Private Water Supply</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

- Standards revision, true color is for permitting purposes only

**Sampling and Assessment by the Oklahoma Water Resources Board** – 3800 Classen Blvd, Oklahoma City, OK, 73118 – 405.530.8800 – [http://www.owrb.ok.gov](http://www.owrb.ok.gov)

Bathy map available: [http://www.owrb.ok.gov/maps/PMG/owrbdata_Bathy.html](http://www.owrb.ok.gov/maps/PMG/owrbdata_Bathy.html)

**Units**: 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

**Definitions**

- **NS** = Fully Supporting
- **S** = Not Supporting
- **NEI** = Not Enough Information

---

Lugert-Altus

- **Sample Period**: October 2015 - August 2016
- **Times Visited**: 2
- **Sampling Sites**: 4

- **Location**: Greer County
- **Impoundment**: 1947
- **Area**: 6,260 acres
- **Capacity**: 132,830 acre-feet
- **Purposes**: Water Supply, Flood Control, Irrigation

- **Parameters**:
  - Average Turbidity: 10 NTU
  - Average Secchi Depth: 53 cm
  - Water Clarity Rating: Average
  - Chlorophyll-a: 18.7 mg/m³
  - Trophic State Index: 59
  - Trophic Class: Eutrophic
  - Salinity: 1.04 – 1.40 ppt
  - Specific Conductivity: 2023.6 – 2685.9 µS/cm
  - pH: 7.77 – 8.27 pH units
  - Oxidation-Reduction Potential: 214.7 – 528.8 mV
  - Dissolved Oxygen: All readings above 2.0 mg/L
  - Surface Total Nitrogen: 0.78 mg/L to 0.97 mg/L
  - Surface Total Phosphorus: 0.038 mg/L to 0.074 mg/L
  - Nitrogen to Phosphorus Ratio: 18:1

- **Beneficial Uses**:
  - Fish & Wildlife Propagation: NS
  - Aesthetics: S
  - Agriculture: S
  - Primary Body Contact Recreation: NEI
  - Public & Private Water Supply: 

**Notes**

- Standards revision, true color is for permitting purposes only

**Units**

- 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

---


Bathy map available: [http://www.owrb.ok.gov/maps/PMG/owrbdata_Bathy.html](http://www.owrb.ok.gov/maps/PMG/owrbdata_Bathy.html)