

## Level 1 + Lake Profile Field Procedures

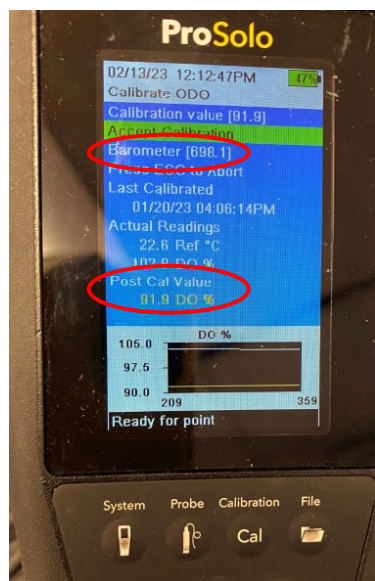
Please hold off going out if your safety would be at risk, if it is raining heavily (i.e., making it difficult to see the Secchi disk accurately), if there is abnormally high boat traffic, or if it is extremely windy. A clear, calm day would be best.

If you need assistance, please phone: **1-877-BCLAKES** or email [info@bcsls.org](mailto:info@bcsls.org).

### STEP 1) Getting to Site

- Upon arrival, note any safety hazards or concerns and adjust plans as needed.
- It is important that the predetermined station is located so that the measurements collected can be compared with the water quality data collected by the Ministry. It is recommended to use a GPS or depth sounder, if available.
- Before anchoring, check lake depth with calibrated rope/tape or depth sounder. Record depth to nearest 0.01 m or establish permanent buoy. If very calm, anchoring may not be necessary.
- Record the date, time, volunteer names, weather, and water conditions (refer to **Field Sheet**).

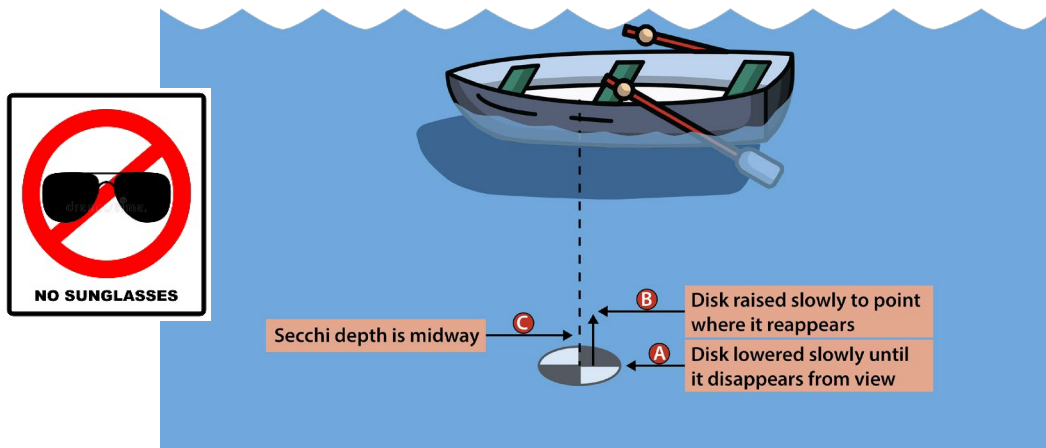
### STEP 2) Lake Profile



- Calibrate the field meter (Refer to “**YSI ProSolo or 550A field guide**” for step-by-step instructions specific to your instrument). Your meter must be calibrated before each time you sample.
- Record the “Post Cal Value” % DO reading as well as the barometer reading in the field sheet to help us determine whether the probe needs servicing.
- Lower the probe until the sensor is submerged just below the surface of the water (the “0 m” reading). Wait at least one minute before recording your results to allow the readings stabilize. Record:
  - Temperature (to the nearest 0.01°C)
  - Dissolved oxygen (to the nearest 0.01 mg/L) ← **Not DO %**
- Lower the probe to a depth of one metre and repeat, recording the values once they have stabilized.
- Continue to measure and record temperature and dissolved oxygen values at one metre intervals, until you reach a depth of 20m. After that, please record at 5m intervals.
- The last measurement will be from a depth one metre above the measured lake bottom (to prevent sediments getting into the sensor) or until the probe cable has reached its maximum length. \*You may have to alter the final depth on your field sheet to include the depth 1 m off the bottom.

### STEP 3) Secchi Depth

- Lower the Secchi disk over the **shaded side** of the boat.
- **Slowly** lower the disk until the black and white pattern is no longer visible. Note the measurement on the tape measure (in metres) at the surface of the water (estimate to the nearest 0.01 m). Record this as Distance A.
- Pull the disk up until the black and white pattern **just** appears again and note the measurement of the tape measure at surface of the water. Record this distance as Distance B.
- **Average the two measurements  $[(\text{Distance A} + \text{Distance B})/2] = \text{Secchi depth}$ .**



### STEP 4) Check and Fill in the Remainder of the Form

Please fill in the entire form and note any observations while travelling to or while sampling at the site. This may include algal blooms, suspended sediment, colour, oil slicks, debris, pollen, fish kills, recent storm or high wind events, fishing derby's, water skiing competitions, etc. The data form has space for one site on the same water body. If you need more, please use a separate copy of the data form.

Once the sampling season is complete, please load your data into the excel sheet provided and send it by email to [info@bclss.org](mailto:info@bclss.org). If you prefer, you can also send your field forms by mail to the BCLSS office located at Box 110, 5505 Jacobson Road, Big Lake Ranch, BC, V0L 1G0. For assistance, please email us at [info@bclss.org](mailto:info@bclss.org) or phone our office: 1-877-BCLAKES.

**THANK-YOU FOR YOUR TIME AND COMMITMENT TO BC LAKES  
HAPPY SAMPLING!**